

STIC-Biotech/ChemLib

88239

From: Gibbs, Terra  
Sent: Wednesday, March 05, 2003 2:05 PM  
To: STIC-Biotech/ChemLib  
Subject: Sequence search request...

Could you please do a regular search of SEQ ID NO:1 of USSN 09/909775?

Please no EST's and no interference search.

Terra Gibbs #79523  
AU 1635  
Mailbox 11E12  
306-3221

CRFE

THANK YOU!

Edward Hart  
Technical Info. Specialist  
STIC/Biotech  
CMI 6B02 Tel: 305-9203

Searcher: \_\_\_\_\_  
Phone: \_\_\_\_\_  
Location: \_\_\_\_\_  
Date Picked Up: 3/4/03  
Date Completed: 3/13/03  
Searcher Prep/Review: \_\_\_\_\_  
Clerical: \_\_\_\_\_  
Online time: \_\_\_\_\_

TYPE OF SEARCH: /  
NA Sequences: \_\_\_\_\_  
AA Sequences: \_\_\_\_\_  
Structures: \_\_\_\_\_  
Bibliographic: \_\_\_\_\_  
Litigation: \_\_\_\_\_  
Full text: \_\_\_\_\_  
Patent Family: \_\_\_\_\_  
Other: \_\_\_\_\_

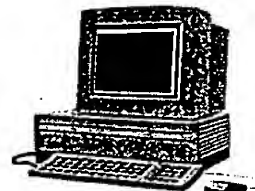
VENDOR/COST (where applic.)  
STN: \_\_\_\_\_  
DIALOG: \_\_\_\_\_  
Questel/Orbit: \_\_\_\_\_  
DRLink: \_\_\_\_\_  
Lexis/Nexis: \_\_\_\_\_  
Sequence Sys.: 03  
WWW/Internet: \_\_\_\_\_  
Other (specify): \_\_\_\_\_

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# BioTech-Chem Library

## Search Results

### Feedback Form (Optional)



Scientific & Technical Information C

The search results generated for your recent request are attached. If you have any questions or comments (compliments or complaints) about the scope or the results of the search, please contact *the BioTech-Chem searcher* who conducted the search *or* contact:

Mary Hale, Supervisor, 308-4:  
CM-1 Room 1E01

---

#### *Voluntary Results Feedback Form*

➤ *I am an examiner in Workgroup:* (Example: 1610)

➤ *Relevant prior art found, search results used as follows:*

- ☐ 102 rejection
- ☐ 103 rejection
- ☐ Cited as being of interest.
- ☐ Helped examiner better understand the invention.
- ☐ Helped examiner better understand the state of the art in their technology.

*Types of relevant prior art found:*

- ☐ Foreign Patent(s)
- ☐ Non-Patent Literature  
(journal articles, conference proceedings, new product announcements etc.)

➤ *Relevant prior art not found:*

- ☐ Results verified the lack of relevant prior art (helped determine patentability).
- ☐ Search results were not useful in determining patentability or understanding the invention.

**Other Comments:**

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Drop off completed forms at the Circulation Desk CM-1, or send to Mary Hale, CM1-1E01 or [mary.hale@uspto.gov](mailto:mary.hale@uspto.gov) v

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GenCore version 5.1.4\_p5\_4578  
Copyright (c) 1993 - 2003 Compugen Ltd.

OM nucleic - nucleic search, using sw model

Run on: March 13, 2003, 06:16:28 ; Search time 7138 Seconds  
(without alignments)  
11575.072 Million cell updates/sec

Title: US-09-909-775-1  
Perfect score: 2839  
Sequence: 1 agcggcgctgaattctagg.....taaacatctcaccggaattc 2839

Scoring table: IDENTITY\_NUC  
Gapop 10.0 , Gapext 1.0

Searched: 2054640 seqs, 14551402878 residues

Total number of hits satisfying chosen parameters: 4109280

Minimum DB seq length: 0  
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%  
Maximum Match 100%  
Listing first 45 summaries

Database :

GenEmbl:

- 1: gb\_ba.\*
- 2: gb\_htg.\*
- 3: gb\_in.\*
- 4: gb\_om.\*
- 5: gb\_ov.\*
- 6: gb\_pat.\*
- 7: gb\_ph.\*
- 8: gb\_pl.\*
- 9: gb\_pr.\*
- 10: gb\_ro.\*
- 11: gb\_sts.\*
- 12: gb\_sy.\*
- 13: gb\_un.\*
- 14: gb\_vl.\*
- 15: em\_ba.\*
- 16: em\_fun.\*
- 17: em\_hum.\*
- 18: em\_in.\*
- 19: em\_mu.\*
- 20: em\_om.\*
- 21: em\_or.\*
- 22: em\_ov.\*
- 23: em\_pat.\*
- 24: em\_ph.\*
- 25: em\_pl.\*
- 26: em\_ro.\*
- 27: em\_sts.\*
- 28: em\_un.\*
- 29: em\_vl.\*
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- 31: em\_htg\_inv.\*
- 32: em\_htg\_other.\*
- 33: em\_htg\_mus.\*
- 34: em\_htg\_pln.\*
- 35: em\_htg\_rod.\*
- 36: em\_htg\_mam.\*
- 37: em\_htg\_vrt.\*
- 38: em\_sy.\*
- 39: em\_htgo\_hum.\*
- 40: em\_htgo\_mus.\*
- 41: em\_htgo\_other.\*

Pred. No. is the number of results predicted by chance to have a

score greater than or equal to the score of the result being printed,  
and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match %	Length	DB ID	Description
1	2839	100.0	2839	6	AX418513 Sequence
2	2839	100.0	2840	9	AF026692 Homo sapi
3	1876.2	66.1	2009	6	AR129250 Sequence
4	1704.6	60.0	1767	6	E28891 Member of F
5	1704.6	60.0	1767	6	E41285 Member of F
6	1694.8	59.7	1969	6	E28892 Member of F
7	1694.8	59.7	1969	6	E41286 Member of F
8	1559.8	55.3	174241	9	AC018634 Human Chr
9	1556.2	54.8	225912	2	AC084210 Homo sapi
10	1392.8	49.1	1458	6	E28726 Novel human
11	1392.8	49.1	1458	6	E46935 Novel human
12	936	33.0	1910	10	AF012891 Rattus no
13	920.2	32.4	1785	10	AF117709 Mus muscu
14	918.2	32.3	1739	10	BC034853 Mus muscu
15	906.8	31.9	1715	10	AF140346 Rattus no
16	731	25.7	2896	10	AF220608 Rattus no
17	700.2	24.7	185202	2	AC120781 Pan trogl
18	700.2	24.7	241570	2	AC120839 Pan trogl
19	690.4	24.3	195280	9	AC073869 Homo sapi
20	540.6	19.0	584	6	AX393842 Sequence
21	519.8	18.3	547	6	AX062436 Sequence
22	519.8	18.3	547	6	AX367353 Sequence
23	515.8	18.2	544	6	AX360472 Sequence
24	480.8	16.9	512	6	AX360334 Sequence
25	477.4	16.8	566	6	AX260813 Sequence
26	444.8	15.7	448	6	AX329897 Sequence
27	444.8	15.7	448	6	AX335458 Sequence
28	433.8	15.3	445	6	AX393881 Sequence
29	421	14.8	7323	6	AX344800 Sequence
30	420	14.8	7323	6	AX344801 Sequence
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33	387.8	13.7	3357	10	AF364906 Mus muscu
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37	383.2	13.5	4483	10	AF140347 Rattus no
38	374.8	13.2	1050	10	U88569 Mus musculu
39	356.2	12.5	137159	2	AC069090 Homo sapi
40	312.8	11.0	1833	5	AF218057 Gallus ga
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43	303.6	10.7	378	6	AX261130 Sequence
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45	295.2	10.4	2176	6	AR116407 Sequence

ALIGNMENTS

RESULT 1	AX418513	Sequence 1	2839 bp	DNA	linear	PAT 18-JUN-2002
LOCUS	AX418513	Sequence 1 from Patent WO0205857.				
DEFINITION	AX418513					
ACCESSION	AX418513					
VERSION	AX418513.1	GI:21523378				
KEYWORDS	human.					
SOURCE	human.					
ORGANISM	Homo sapiens					
	Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;					
	Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.					
REFERENCE						
AUTHORS	Schiavi, S., Madden, S.L., Manavalan, P., Levine, M. and de Beur, S.J.					
TITLE	Phosphatoin-related gene and methods of use thereof					
JOURNAL	Patent: WO 0205857-A 1 24-JAN-2002;					



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 Db 1921 GAAACTTAAACAAAAATAATAATAAAGAAAAATAAAGAGGAGGAGGAGCAATG 1980  
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 Db 2821 AAACATCTCACCAGGAATTC 2839

RESULT 2  
 AF026692

LOCUS AF026692 2840 bp mRNA linear PRI 02-MAR-1998  
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 ACCESSION AF026692  
 VERSION AF026692.1 GI:2920803  
 SOURCE Homo sapiens.  
 ORGANISM Homo sapiens  
 Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  
 Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.  
 REFERENCE 1 (bases 1 to 2840)  
 AUTHORS Abu-Jawdeh, G.M., Comella, N., Brown, L.F., Tognazzi, K. and Kocher, O.  
 TITLE frizzled related protein frpHE (Homo Sapiens)  
 JOURNAL Unpublished  
 REFERENCE 2 (bases 1 to 2840)  
 AUTHORS Abu-Jawdeh, G.M., Comella, N., Brown, L.F., Tognazzi, K. and Kocher, O.  
 TITLE Direct Submission  
 JOURNAL Submitted (02-MAR-1998) Pathology, BIDMC, East Campus, 330 Brookline Avenue, Boston, MA 02215, USA  
 REFERENCE 3 (bases 1 to 2840)  
 AUTHORS Abu-Jawdeh, G.M., Comella, N., Brown, L.F., Tognazzi, K. and Kocher, O.  
 TITLE Direct Submission  
 JOURNAL Submitted (02-MAR-1998) Pathology, BIDMC, East Campus, 330 Brookline Avenue, Boston, MA 02215, USA  
 REMARK Sequence update by submitter  
 COMMENT On Mar 2, 1998 this sequence version replaced gi:2576419.  
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 Best Local Similarity 100.0%; Pred. No. 0;  
 Matches 2839; Conservative. 0; Mismatches 0; Indels 0; Gaps 0;  
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|||||  
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RESULT 3  
LOCUS AR129250 2009 bp DNA linear PAT 16-MAY-2001  
DEFINITION Sequence 108 from patent US 6183968.  
ACCESSION AR129250  
VERSION AR129250.1 GI:14116912  
KEYWORDS  
SOURCE Unknown.  
ORGANISM Unknown.  
  
REFERENCE  
1 (bases 1 to 2009)  
Bandman, O., Lal, P., Hillman, J. L., Yue, H., Reddy, R., Guegler, K. J.  
and Baughn, M. R.  
TITLE Composition for the detection of genes encoding receptors and  
proteins associated with cell proliferation  
JOURNAL Patent: US 6183968-A 108 06-FEB-2001;  
FEATURES  
Location/Qualifiers  
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BASE COUNT 549 a 479 c 520 g 461 t  
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Query Match 66.1%; Score 1876.2; DB 6; Length 2009;  
Best Local Similarity 98.4%; Pred. No. 0;  
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Db	1342	ACTTCCGACATTCCCTTACAGGATGAGGCTGGGCAATTGGCTGGGACAGGCTATTGTAAAGGCCA	1401
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Qy	1681	ATGTTTTATTACCTTTTGATATCTGTTGTTGCCAATGTTAGTGATGTTTAAATGTGATG	1740
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DEFINITION	Member of FRZB family, FRAZZLED.		
ACCESSION	E41286		
VERSION	E41286.1		
KEYWORDS	JP 2000083683-A/2.		
SOURCE	unidentified.		
ORGANISM	unidentified.		
REFERENCE	1 (bases 1 to 1969)		
AUTHORS	Lark,M.W., James,I.E. and Kumar,S.		
TITLE	Member of FRZB family, FRAZZLED		
JOURNAL	Patent: JP 2000083683-A 2 28-MAR-2000;		
COMMENT	SMITHKLINE BEECHAM CORP		
	OS Unidentified		
	PN JP 2000083683-A/2		
	PD 28-MAR-2000		
	PR 17-AUG-1999		
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	MICHAEL WILLIAM LARK, IAN EDWARD JAMES, SANJAY KUMAR		
	PC 1621N5/09, A61K31/7088, A61K38/00, A61K39/00, A61K39/395, PC		
	A61K39/395, A61K45/00,		
	PC A61K48/00, A61P7/00, A61P13/12, A61P17/06, A61P19/02, A61P19/10, PC		
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	PC C12N1/15,		
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	PC G01N33/566, G01N33/577//C12P21/08, C12N15/00, A61K37/02, C12N5/00,		

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CC Strandedness: Single;
FH Key Location/Qualifiers
FT source 1..1969 /organism="Unidentified"
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BASE COUNT 504 a 484 c 518 g 458 t 5 others
ORIGIN

Query Match 59.7% Score 1694.8; DB 6; Length 1969;
Best Local Similarity 96.4%; Pred. No. 0;
Matches 1854; Conservative 0; Mismatches 49; Indels 21; Gaps 11;

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\* 170683 170782: gap of unknown length  
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\* 188137 188236: gap of unknown length  
\* 188237 204280: contig of 16044 bp in length  
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\* 223432 223531: gap of unknown length  
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DEFINITION Novel human gene (ATG-1639) similar to secretory protein Frizb.  
ACCESSION E28726  
VERSION E28726.1 GI:13025446

KEYWORDS JP 1999004698-A/1.  
SOURCE unidentified.  
ORGANISM unclassified.  
REFERENCE 1 (bases 1 to 1458)  
AUTHORS Ading,F. and Yuan,Z.  
TITLE Novel human gene (ATG-1639) similar to secretory protein Frizb  
JOURNAL Patent: JP 1999004698-A 1 12-JAN-1999;  
SMITHKLINE BEECHAM CORP  
COMMENT OS Unidentified  
PN JP 1999004698-A/1  
PD 12-JAN-1999  
PE 25-MAY-1998 JP 1998142888  
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DEFINITION Rattus norvegicus frizzled related protein frpAP mRNA, complete
cds.
ACCESSION AF012891
VERSION AF012891.1 GI:2293563
KEYWORDS
SOURCE Rattus norvegicus.
ORGANISM Rattus norvegicus
Eukaryota; Metazoa; Chordata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae;
Rattus.
REFERENCE 1 (bases 1 to 1910)
AUTHORS Guo,K., Wolf,V., Dharmarajan,A., Feng,Z., Bielke,W., Susanne,S. and
Friis,R.R.
TITLE Apoptosis-associated Gene Expression in Corpus luteum of the Rat
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JOURNAL Unpublished
REFERENCE 2 (bases 1 to 1910)
AUTHORS Wolf,V., Artuso,L., Dharmarajan,A., Guo,K., Bielke,W. and
Friis,R.R.
TITLE A frizzled related Gene is upregulated in Physiological Apoptosis
JOURNAL Unpublished
REFERENCE 3 (bases 1 to 1910)
AUTHORS Wolf,V., Artuso,L., Dharmarajan,A., Guo,K., Bielke,W. and
Friis,R.R.
TITLE Direct Submission
JOURNAL Submitted (07-JUL-1997) Department for Clinical Research,
University of Bern, Tiefenaustrasse 120, Bern 3004, Switzerland
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ACCESSION AF117709
VERSION AF117709.1 GI:4219089
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SOURCE Mus musculus.
ORGANISM Mus musculus.
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
REFERENCE 1 (bases 1 to 1785)
AUTHORS Chang J.T., Esumi, N., Moore, K., Li, Y., Zhang, S., Chew, C.,
Goodman, B., Rattner, A., Moody, S., Stetten, G., Campochiaro, P.A. and
Zack, D.J.
TITLE Cloning and characterization of a secreted frizzled-related protein
that is expressed by the retinal pigment epithelium
JOURNAL Hum. Mol. Genet. (1999) In press
REFERENCE 2 (bases 1 to 1785)
AUTHORS Rattner, A. and Nathans, J.H.
DIRECT SUBMISSION
TITLE Submitted (04-JAN-1999) MBG, JHMI, 725 N. Wolfe St., Room 805 PCTB,
Baltimore, MD 21205, USA
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BC034853.1 GI:22028397  
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house mouse.  
Mus musculus  
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Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.  
1 (bases 1 to 1739)  
Strausberg, R.  
Direct Submission  
Submitted (29-JUL-2002) National Institutes of Health, Mammalian  
Gene Collection (MGC), Cancer Genomics Office, National Cancer  
Institute, 31 Center Drive, Room 11A03, Bethesda, MD 20892-2590,  
USA  
NIH-MGC Project URL: <http://mgc.nci.nih.gov>  
Contact: MGC help desk  
Email: [cgabbs-remail.nih.gov](mailto:cgabbs-remail.nih.gov)  
Tissue Procurement: Marcello Bento Soares, Ph.D.  
cDNA Library Preparation: Soares Laboratory  
cDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)  
DNA Sequencing by: Genome Sequence Centre,  
BC Cancer Agency, Vancouver, BC, Canada  
[info@bcsc.bc.ca](mailto:info@bcsc.bc.ca)  
Steven Jones, Jennifer Asano, Ian Bosdet, Yaron Butterfield,  
Susanna Chan, Readman Chiu, Chris Fjell, Erin Garland, Ran Guin,  
Leticia Hsiao, Martin Krzywinski, Reta Kutsche, Oliver Lee, Soo  
Sen Lee, Victor Ling, Carrie Mathewson, Candice McLeavy, Steven  
Ness, Pawan Pandoh, Anna-Liisa Prabhu, Parvaneh Saedee, Jacqueline  
Schelin, Duane Smalhus, Michael Smith, Lorraine Spence, Jeff Scott,  
Michael Thorne, Miranada Tsai, Natasja van den Bosch, Jill Vardy,  
George Yang, Scott Zuyderduyn, Marco Marra.

Clone distribution: MGC clone distribution information can be found  
through the I.M.A.G.E. Consortium/LLNL at: <http://image.llnl.gov>  
Series: IRAC Plate: 67 Row: b Column: 24  
This clone was selected for full length sequencing because it



passed the following selection criteria: matched mRNA gi: 7710093.  
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LOCUS  
DEFINITION Rattus norvegicus frizzled related protein mRNA, complete cds.  
ACCESSION AF140346  
VERSION AF140346.1 GI:7672422





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#### SUMMARIES

Result No.	Score	Query Match	Length	ID	Description
1	2839	100.0	2839	AA141901	Human frizzled rel
2	2839	100.0	2840	AA54127	Breast cancer prot
3	2839	100.0	2840	ABQ88233	Human osteoblast d
4	2837.4	99.9	2840	AAA97364	Human colorectal c
5	2820	99.3	2820	ABK92118	Prostate cancer-as
6	1876.2	66.1	2009	ABK80598	Receptor #86 part1
7	1706.2	60.1	1767	AAK84495	Human FRAZZLED pol
8	1704.6	60.0	1767	AAV80657	Human FRAZZLED pro
9	1694.8	59.7	1969	AAV80658	Partial human FRAZ

10	1694.8	59.7	1969	22	AAK84496	Partial nucleotide
11	1694.8	59.7	1969	24	ABQ88234	Human osteoblast d
12	1541.2	54.3	1581	20	AAK28656	Full length clone
13	1432	50.4	1556	20	AAZ33454	Human prostate can
14	1392.8	49.1	1458	19	AAV08951	Human ATG-1639 pro
15	1073.6	37.8	1216	24	ABQ54454	Human ovarian anti
16	1041	36.7	1041	21	AAA54128	Breast cancer prot
17	1027.4	36.2	1046	20	AAK28655	Nucleotide sequenc
18	898.6	31.7	1041	21	AAA99046	Bos taurus Frazzle
19	564.8	19.9	695	24	ABO57675	Human colon cancer
20	540.6	19.0	584	24	ABK54035	Human head and nec
21	519.8	18.3	547	22	AAK68145	Human lung tumour
22	519.8	18.3	547	24	ABK38056	CDNA encoding clon
23	515.8	18.2	544	24	ABK16044	Human lung tumour
24	480.8	16.9	512	24	ABK15906	Human lung tumour
25	477.4	16.8	566	23	AAK57788	CDNA #464 encoding
26	444.8	15.7	448	24	ABL62069	Colon adenocarcino
27	444.8	15.7	448	24	ABL67630	Oesophagus cancer
28	433.8	15.3	445	24	ABK54073	Human head and nec
29	421	14.8	7323	24	ABN80209	Human chemically m
30	420	14.8	7323	24	ABN80209	Human lung cancer-
31	395.8	13.9	401	21	AAK65973	Human lung tumour
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34	306.2	10.8	323	24	ABK53865	Human chemically m
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37	295.2	10.4	1786	19	AAV13102	Mouse hsfz cDNA.
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39	295.2	10.4	2176	24	AB199691	Mouse ischaemic co
40	295.2	10.4	2441	19	AAV13104	Mouse hsfz cDNA (v
41	295	10.4	363	24	ABL67602	Oesophagus cancer
42	287.8	10.1	1909	19	AAV13101	Human hsfz cDNA.
43	287.8	10.1	1909	24	ABK64750	Human benign prost
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45	286.2	10.1	1484	19	AAV18254	Human growth-induc

#### ALIGNMENTS

RESULT 1  
AA141901  
ID AA141901 standard; CDNA; 2839 BP.

XX AA141901;

AC AA141901;

XX 03-MAY-2002 (first entry)

DT Human frizzled related protein 4 (FRP-4) cDNA sequence.

XX Human; phosphate homeostasis modulation; frizzled related protein-4;  
FRP-4; gene; phosphate transportation; serum phosphate concentration;  
hypophosphataemia; phosphaturia; 1,25-dihydroxy vitamin D deficiency;  
osteomalacia; phosphate homeostasis related disease;  
KW X-linked hypophosphataemia; rickets; oncogenic osteomalacia;  
KW rhabdomyolysis; cardiomyopathy; tumoral calcinosis; renal failure;  
KW bone mineralisation; ss.

OS Homo sapiens.

XX Key Location/Qualifiers  
CDS 257..1297  
FT /tag= a  
FT /product= "FRP-4 protein"

XX WO200205857-A2.

XX 24-JAN-2002.

XX 19-JUL-2001; 2001WO-US23014.

XX 19-JUL-2000; 2000US-219365P.

PR 12-JAN-2001; 2001US-261438P.  
XX (GENZ ) GENZYME CORP.  
XX Schlavi S, Madden SL, Manavalan P, Levine M, De Beur SJ;  
XX WPI; 2002-179752/23.  
DR P-PSDB; AAO14432.  
XX  
PT Modulating phosphate homeostasis in a subject, for alleviating  
PT oncogenic osteomalacia-associated symptoms, comprises altering the  
PT activity of frizzled related protein-4 (FRP4) or a gene encoding FRP-4  
PT polypeptide  
XX  
PS Disclosure; Fig 1; 51pp; English.  
XX  
CC The invention comprises a method for modulating phosphate homeostasis in  
CC a subject. The method involves altering the activity of the frizzled  
CC related protein-4 (FRP-4), or altering the expression of the FRP-4 gene.  
CC Phosphate plays a critical role in many cellular processes essential to  
CC normal functionality of the human body. Phosphate homeostasis is  
CC primarily regulated by the kidney, largely through variation in renal  
CC tubular re-absorption of phosphate. Alterations of the phosphate  
CC transporting function of the kidney and subsequent disturbance of serum  
CC phosphate concentration often lead to serious biochemical and clinical  
CC problems. The method of the invention is useful for modulating phosphate  
CC homeostasis in a subject. The method of the invention can be used to  
CC alleviate oncogenic osteomalacia-associated symptoms (e.g.  
CC hypophosphataemia, phosphaturia, low serum concentrations of 1,25-  
CC dihydroxy vitamin D and osteomalacia). The method of the invention can  
CC also be used to treat phosphate homeostasis-related diseases (e.g.  
CC x-linked hypophosphataemia, rickets, oncogenic osteomalacia,  
CC rhabdomyolysis, cardiomyopathy, tumoral calcinosis, renal failure and  
CC bone mineralisation). The present CDNA sequence encodes the human  
CC frizzled related protein 4 (FRP-4).  
XX  
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Best Local Similarity 100.0%; Pred. No. 0;  
Matches 2839; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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QY 2461 AGTAAGCATGATTTTATAGGCAATTTTAAAGCAATTTTAAAGCAATTTTAAAGCAAT 2520  
Db 2461 AGTAAGCATGATTTTATAGGCAATTTTAAAGCAATTTTAAAGCAATTTTAAAGCAAT 2520  
QY 2521 CTATCTAATCTCTCTCCACTACAGAGGTAATCACTATTAGTATTTTGGCATATTAT 2580  
Db 2521 CTATCTAATCTCTCTCCACTACAGAGGTAATCACTATTAGTATTTTGGCATATTAT 2580  
QY 2581 TCTCCAGGTGTTTGTCTATGCACTTATAAATGATTTTGAACAAATAAATACTAGGAACCTG 2640  
Db 2581 TCTCCAGGTGTTTGTCTATGCACTTATAAATGATTTTGAACAAATAAATACTAGGAACCTG 2640  
QY 2641 TATACATGTGTTTTCATAACCTGCTTCTTGTGCTGCTTGTGCTGCTTGTGCTGCTT 2700

Db 2641 TATACATGTGTTTTCATAACCTGCTTCTTGTGCTGCTTGTGCTGCTTGTGCTGCTT 2700  
QY 2701 GTCAGAAAGCAGAAACCATCTCTTCTTAACAGCTGTGTTATATTCATAGTATGCAAT 2760  
Db 2701 GTCAGAAAGCAGAAACCATCTCTTCTTAACAGCTGTGTTATATTCATAGTATGCAAT 2760  
QY 2761 ACTCAACAACACTGTTGCTATTTGGATCTTAGGTGGTTTCTTCTTCTTCTTCTTCTT 2820  
Db 2761 ACTCAACAACACTGTTGCTATTTGGATCTTAGGTGGTTTCTTCTTCTTCTTCTTCTT 2820  
QY 2821 AAACATCTCACCGGAATTC 2839  
Db 2821 AAACATCTCACCGGAATTC 2839  
RESULT 2  
AAAS4127  
ID AAAS4127 standard; DNA; 2840 BP.  
XX  
AC AAAS4127;  
XX  
DT 08-FEB-2001 (first entry)  
XX  
DE Breast cancer protein BCX2 coding sequence.  
XX  
KW Breast cancer; diagnosis; prognosis; detection; screening;  
KW antibody; oestrogen receptor; anti-oestrogen; immune response;  
KW lymph node; metastases; tumour; BCR3; BCQ8; BCQ5; BCH1; BCN1; BCN2;  
KW BCN5; BCQ2; BCX2; BCX3; BCA2; BCR2; BCJ7; BCY3; human; ds.  
XX  
OS Homo sapiens.  
XX  
FH Key Location/Qualifiers  
FT CDS 258..11298  
FT a  
FT /product= BCX2 protein  
PN WO200055629-A2.  
XX  
PD 21-SEP-2000.  
XX  
PF 15-MAR-2000; 2000WO-US06952.  
XX  
PR 15-MAR-1999; 99US-0268865.  
PR 12-NOV-1999; 99US-0439878.  
PR 12-NOV-1999; 99US-0440370.  
PR 15-NOV-1999; 99US-0440493.  
PR 16-NOV-1999; 99US-0440676.  
PR 16-NOV-1999; 99US-0440677.  
PR 29-NOV-1999; 99US-0450810.  
PR 02-DEC-1999; 99US-0453137.  
PR 08-MAR-2000; 2000US-0453137.  
XX  
PA (EOSB-) EOS BIOTECHNOLOGY INC.  
XX  
PI Mack D, Gish KC;  
XX  
DR WPI; 2000-638216/61.  
DR P-PSDB; AAB00193.  
XX  
PT Screening drug candidates for their ability to modulate breast cancer  
PT by contacting the drug to a cell expressing an expression profile gene  
PT and determining modulation of expression of the gene  
XX  
PS Disclosure; Fig 57; 258pp; English.  
XX  
CC New methods for screening drug candidates are described which  
CC comprise adding a drug candidate to a cell that expresses a protein  
CC selected from BCH1, BCA2, BCJ7, BCN1, BCN5, BCQ2, BCQ5, BCR2, BCX2  
CC and BCY3 or their fragments and determining the effect of the drug  
CC on the expression of those proteins. Antibodies to breast cancer  
CC genes (specifically BCH1 or its fragment (BCH1p1 or BCH1p2)) are

CC useful for inhibiting and treating breast cancer in individuals who  
CC are non-responsive to anti-oestrogen and positive for oestrogen  
CC receptor. Compositions comprising BCh1 or a nucleic acid encoding  
CC BCh1 are useful for eliciting an immune response in an individual.  
CC The antibodies are also useful for the diagnosis and prognosis of  
CC breast cancer and for screening compositions which modulate the  
CC breast cancer phenotype. The method allows rapid and simple  
CC detection of lymph node metastases.

XX  
SQ Sequence 2840 BP; 807 A; 625 C; 649 G; 759 T; 0 other;

Query Match 100.0%; Score 2839; DB 21; Length 2840;  
Best Local Similarity 100.0%; Pred. No. 0;  
Matches 2839; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 AGCGGCGCTGAATTCAGGGGGGTTCGCGCCCGGAGAGCTGAGAGCTGGCGCTCTCG 60  
DB 2 AGCGGCGCTGAATTCAGGGGGGTTCGCGCCCGGAGAGCTGAGAGCTGGCGCTCTCG 61  
QY 61 TGGCCCTGTGTGCAGACGCGGAGCTCCGCGGCGGACCCCGCGGCGCTTTGTGTC 120  
DB 62 TGGCCCTGTGTGCAGACGCGGAGCTCCGCGGCGGACCCCGCGGCGCTTTGTGTC 121  
QY 121 GACTGGAGTTTGGGGAAGAACTCTCTGCGCCCGCAGAGATTTCTTCTCGGCGAAG 180  
DB 122 GACTGGAGTTTGGGGAAGAACTCTCTGCGCCCGCAGAGATTTCTTCTCGGCGAAG 181  
QY 181 GACAGCGAAGATGAGGCTGGCAGGAAGAGAGCGGCTTTCTGTCGCGGGGTCCAGC 240  
DB 182 GACAGCGAAGATGAGGCTGGCAGGAAGAGAGCGGCTTTCTGTCGCGGGGTCCAGC 241  
QY 241 GCGAGAGGCGAGTGCCATGTTCTCTCCATCTCTAGTGGCGCTGTGCTGTGCGACCT 300  
DB 242 GCGAGAGGCGAGTGCCATGTTCTCTCCATCTCTAGTGGCGCTGTGCTGTGCGACCT 301  
QY 301 GCGGCTGGGCGGTGCGGCGGCGGCGCTTGGAGGGGTGGCGATCCCTATGTGCGGGCACAT 360  
DB 302 GCGGCTGGGCGGTGCGGCGGCGGCGCTTGGAGGGGTGGCGATCCCTATGTGCGGGCACAT 361  
QY 361 GCGCTGGAACATCAGCGGATGCCAACAGCTGACACAGCAGCAGCAGAGAGAGCGCAT 420  
DB 362 GCGCTGGAACATCAGCGGATGCCAACAGCTGACACAGCAGCAGAGAGAGCGCAT 421  
QY 421 CCGTGGCCATCGAGCAGTACGAGAGCTGGTGGACGTGAATCGACGCGCGTGTGCGCTT 480  
DB 422 CCGTGGCCATCGAGCAGTACGAGAGCTGGTGGACGTGAATCGACGCGCGTGTGCGCTT 481  
QY 481 CTTCTTCTGTGCCATGTACGCGGCCATTTGCAACCTTGGAGTTTCTGCGAGCGCTATCAA 540  
DB 482 CTTCTTCTGTGCCATGTACGCGGCCATTTGCAACCTTGGAGTTTCTGCGAGCGCTATCAA 541  
QY 541 GCGCTGCAAGTGGTGTGCAAGCGCGGCGGAGCTGCGAGCGCTCATGAAGATGA 600  
DB 542 GCGCTGCAAGTGGTGTGCAAGCGCGGCGGAGCTGCGAGCGCTCATGAAGATGA 601  
QY 601 CAACACAGCTGCGCCGAAGCGTGGCCCTGCGACGAGCTGCCTGTATGACCGTGGCGT 660  
DB 602 CAACACAGCTGCGCCGAAGCGTGGCCCTGCGACGAGCTGCCTGTATGACCGTGGCGT 661  
QY 661 GTGCAATTTCCGCTGAACCCATGTTCAGGACCTCCCGGAGGATGTTAAGTGGATGACAT 720  
DB 662 GTGCAATTTCCGCTGAACCCATGTTCAGGACCTCCCGGAGGATGTTAAGTGGATGACAT 721  
QY 721 CACACAGACATGATGGTACAGGAAGGCTCTTGATGTTGACTGTAAAGCGCTAAGCCC 780  
DB 722 CACACAGACATGATGGTACAGGAAGGCTCTTGATGTTGACTGTAAAGCGCTAAGCCC 781  
QY 781 CGATCGGTGCAAGTGTAAAGAGTGAAGCAACTTTGGCAAGCTATCTCAGCAAAACTA 840  
DB 782 CGATCGGTGCAAGTGTAAAGAGTGAAGCAACTTTGGCAAGCTATCTCAGCAAAACTA 841  
QY 841 CAGCTATGTTATTCATGCCCAAAATAAAGCTGTGCGAGAGGCTGGCTGCAATGAGTCA 900

DB 842 CAGCTATGTTATTCATGCCCAAAATAAAGCTGTGCGAGAGGAGTGGCTGCAATGAGTCA 901  
QY 901 AACCGTGGTGGATGTAAGAGAGATCTTCAAGTCCCTCATCACCACATCCCTCGAATCA 960  
DB 902 AACCGTGGTGGATGTAAGAGAGATCTTCAAGTCCCTCATCACCACATCCCTCGAATCA 961  
QY 961 CCGGCTCATTAACAAATCTTCTTGGCAGTGTCCACACATCTGCCCCCATCAAGATGTTCT 1020  
DB 962 CCGGCTCATTAACAAATCTTCTTGGCAGTGTCCACACATCTGCCCCCATCAAGATGTTCT 1021  
QY 1021 CATCATGCTTACGAGTGGCTTCAAGGATGATGCTTCTTGAATTTGCTTGTAGTCAAAA 1080  
DB 1022 CATCATGCTTACGAGTGGCTTCAAGGATGATGCTTCTTGAATTTGCTTGTAGTCAAAA 1081  
QY 1081 ATGGAGAGATCAGCTTTAGTAAAGATCCATACAGTGGGAGAGAGGCTCAGGAAACAGCG 1140  
DB 1082 ATGGAGAGATCAGCTTTAGTAAAGATCCATACAGTGGGAGAGAGGCTCAGGAAACAGCG 1141  
QY 1141 GAGACAGTTCAGGACAAAGAAACAGCGCGGCGCACAGTCTGTAGTAATATCCGCCAA 1200  
DB 1142 GAGAACAGTTCAGGACAAAGAAACAGCGCGGCGCACAGTCTGTAGTAATATCCGCCAA 1201  
QY 1201 ACCAAAGGAAAGCCCTCTGCTCCCAACAGCAGCTCCCAAGAAACATTAATACTAG 1260  
DB 1202 ACCAAAGGAAAGCCCTCTGCTCCCAACAGCAGCTCCCAAGAAACATTAATACTAG 1261  
QY 1261 GAGTGGCCAGAGAGAAACAAACCCGAAAGAGTGTGAGCTAACTAGTTTCCAAAGCGAG 1320  
DB 1262 GAGTGGCCAGAGAGAAACAAACCCGAAAGAGTGTGAGCTAACTAGTTTCCAAAGCGAG 1321  
QY 1321 ACTTCGAGCTTCTTACAGGATGAGGCTGGGCAATGCTTGGGACAGCTATGTAAAGGCA 1380  
DB 1322 ACTTCGAGCTTCTTACAGGATGAGGCTGGGCAATGCTTGGGACAGCTATGTAAAGGCA 1381  
QY 1381 TGTGGCCCTTGGCCCTAACAACTCACTGCTCATAGACACATCTTCAGCATTT 1440  
DB 1382 TGTGGCCCTTGGCCCTAACAACTCACTGCTCATAGACACATCTTCAGCATTT 1441  
QY 1441 TTCTTAAGCTATGCTTCAAGTTTCTTAAAGCCATCACAAGCCATAGTGTAGTTT 1500  
DB 1442 TTCTTAAGCTATGCTTCAAGTTTCTTAAAGCCATCACAAGCCATAGTGTAGTTT 1501  
QY 1501 GCGCTTTGTACAGAGTGTAGTTTAAAGCTGTGAAAAAGGCTTATTTGATTCATTCAG 1560  
DB 1502 GCGCTTTGTACAGAGTGTAGTTTAAAGCTGTGAAAAAGGCTTATTTGATTCATTCAG 1561  
QY 1561 AGTAACCTGTGTGCATCTTACAGAGTGTGAAAAATATGCTTCTTCAATTCACCT 1620  
DB 1562 AGTAACCTGTGTGCATCTTACAGAGTGTGAAAAATATGCTTCTTCAATTCACCT 1621  
QY 1621 AATATGTGCATTTGTAATAATAATGCCATATTTCAAAACAAACACAGTAATTTTTTACAGT 1680  
DB 1622 AATATGTGCATTTGTAATAATAATGCCATATTTCAAAACAAACACAGTAATTTTTTACAGT 1681  
QY 1681 ATGTTTTTATACCTTTTGATATCTGTTTGTCAAGTGTAGTGTATTTTAAATGTGATG 1740  
DB 1682 ATGTTTTTATACCTTTTGATATCTGTTTGTCAAGTGTAGTGTATTTTAAATGTGATG 1741  
QY 1741 AAAATAATATGTTTTTAAAGAAACAGTAGTGGAAATGAATGTTTAAAGATCTTTTATGTG 1800  
DB 1742 AAAATAATATGTTTTTAAAGAAACAGTAGTGGAAATGAATGTTTAAAGATCTTTTATGTG 1801  
QY 1801 TTTATGGCTGCGAAGGATTTTTTGTGATGAAAGGGATTTTTTGAATAATAGAGAAAGT 1860  
DB 1802 TTTATGGCTGCGAAGGATTTTTTGTGATGAAAGGGATTTTTTGAATAATAGAGAAAGT 1861  
QY 1861 AGCATATGAAATATATATGTTTTTTTACCAATGACTTCAGTTTCTGTTTTAGCTA 1920  
DB 1862 AGCATATGAAATATATATGTTTTTTTACCAATGACTTCAGTTTCTGTTTTAGCTA 1921  
QY 1921 GAAACTTAAACAAACAAATAATAATAAGAAATAATAATAAGAGGAGGAGGAGGAGCAATG 1980  
DB 1922 GAACTTAAACAAACAAATAATAATAAGAAATAATAATAAGAGGAGGAGGAGGAGCAATG 1981



QY 301 GCGCGTGGCGTGGCGGCGCGCGCTGGAGCGCGTGGCGATCCCTATGTGCGGCACAT 360  
DB 302 GCGCGTGGCGTGGCGGCGCGCGCTGGAGCGCGTGGCGATCCCTATGTGCGGCACAT 361  
QY 361 GCGCTGGAAACATCAGCGGATGCCCAACACCTGCACACACGACGCGAGGAGACGCCAT 420  
DB 362 GCGCTGGAAACATCAGCGGATGCCCAACACCTGCACACACGACGCGAGGAGACGCCAT 421  
QY 421 CCGTGGCCATCGAGCAGTAGTACGAGGAGCTGGTGACGTGAACTCGACGCGCGTCTGGCGTT 480  
DB 422 CCGTGGCCATCGAGCAGTAGTACGAGGAGCTGGTGACGTGAACTCGACGCGCGTCTGGCGTT 481  
QY 481 CTTCTTCTGTGCGCATGTAGCGGCCCATTTGACCCCTGGAGTTCTTCCACGAGCCCTATCAA 540  
DB 482 CTTCTTCTGTGCGCATGTAGCGGCCCATTTGACCCCTGGAGTTCTTCCACGAGCCCTATCAA 541  
QY 541 GCGGTGCAAGTCGGTGGCAACGCGCGCGGACGACCTCGAGCGCCCTCATCAAGATGTA 600  
DB 542 GCGGTGCAAGTCGGTGGCAACGCGCGCGGACGACCTCGAGCGCCCTCATCAAGATGTA 601  
QY 601 CAACACACAGCTGGCCGGAAGCTGGCCCTGGACGAGCTGCCGTGTCTATGACCGTGGCGT 660  
DB 602 CAACACACAGCTGGCCGGAAGCTGGCCCTGGACGAGCTGCCGTGTCTATGACCGTGGCGT 661  
QY 661 GTGCAATTTGCGCTGAAGCCATCGTCACGACCTCCCGGAGGATGTTAAGTGGATAGACAT 720  
DB 662 GTGCAATTTGCGCTGAAGCCATCGTCACGACCTCCCGGAGGATGTTAAGTGGATAGACAT 721  
QY 721 CACACACACATGATGTTACAGGAAGGCTCTTCTGATGTGACTCTCAAGCAAAACTA 840  
DB 722 CACACACACATGATGTTACAGGAAGGCTCTTCTGATGTGACTCTCAAGCAAAACTA 841  
QY 781 CGATCGGTGCAAGTGTAAAGAGCTGAAGCAAACTTTGGCAAGCTATCTCAGCAAAACTA 900  
DB 782 CGATCGGTGCAAGTGTAAAGAGCTGAAGCAAACTTTGGCAAGCTATCTCAGCAAAACTA 901  
QY 841 CAGCTATGTTATCATGCGCAAAATAAAGCTGTGCAGAGGATGCGTGCATGAGGTAC 960  
DB 842 CAGCTATGTTATCATGCGCAAAATAAAGCTGTGCAGAGGATGCGTGCATGAGGTAC 961  
QY 901 AACGCTGGTGGATGTAAAGAGCTTCAAGTCTCATCACCCATCCCTCGAAGCTCAAGT 960  
DB 902 AACGCTGGTGGATGTAAAGAGCTTCAAGTCTCATCACCCATCCCTCGAAGCTCAAGT 961  
QY 961 CCGCTCATATACAAATCTCTTGGCAGTGTCCACACATCTTCCGCCATCAAGATGTTCT 1020  
DB 962 CCGCTCATATACAAATCTCTTGGCAGTGTCCACACATCTTCCGCCATCAAGATGTTCT 1021  
QY 1021 CATCATGTGTACGAGTGGCGTCAAGGATGATGCTTGTGAAATTTGCTTAGTTGAAA 1080  
DB 1022 CATCATGTGTACGAGTGGCGTCAAGGATGATGCTTGTGAAATTTGCTTAGTTGAAA 1081  
QY 1081 ATGGAGAGATCAGCTTAGTAAAGATCCATACAGTGGGAAGAGGCTGCAGGAACAGCG 1140  
DB 1082 ATGGAGAGATCAGCTTAGTAAAGATCCATACAGTGGGAAGAGGCTGCAGGAACAGCG 1141  
QY 1141 GAGAACAGTTCAGGACAGAAAGCAAGCGCGGGCGCAGCTCGTAGTAATCCGCCCAA 1200  
DB 1142 GAGAACAGTTCAGGACAGAAAGCAAGCGCGGGCGCAGCTCGTAGTAATCCGCCCAA 1201  
QY 1201 ACCAAGGGAAGCCTCTGCTCCCAACAGCCAGCTAGTCCCAAGAGACATTTAAACTAG 1260  
DB 1202 ACCAAGGGAAGCCTCTGCTCCCAACAGCCAGCTAGTCCCAAGAGACATTTAAACTAG 1261  
QY 1261 GAGTCCCAAGAGAGAACAAACCCGAAAGAGTGTAGCTAACTAGTTTCCAAAGCGGAG 1320  
DB 1262 GAGTCCCAAGAGAGAACAAACCCGAAAGAGTGTAGCTAACTAGTTTCCAAAGCGGAG 1321  
QY 1321 ACTTCCGACTTCTTACAGGATGAGGCTGGGCAATTCCTTGGGACAGCCCTATGTAAGGCCA 1380  
DB 1322 ACTTCCGACTTCTTACAGGATGAGGCTGGGCAATTCCTTGGGACAGCCCTATGTAAGGCCA 1381  
QY 1381 TGTGCGCCCTTGGCCCTTAACAACTCACTGCGAGTCTCTTCATAGACACATCTTCACGATTT 1440

DB 1382 TGTGCGCCCTTGGCCCTAAACAACCTCACTGCGAGTCTCTTCATAGACACATCTTCAGCATTT 1441  
QY 1441 TTTCTTAAGGCTATGCTTTCAGTTTTTCTTTGTAAGCCATCACAAGCCATAGTGGTAGTTT 1500  
DB 1442 TTTCTTAAGGCTATGCTTTCAGTTTTTCTTTGTAAGCCATCACAAGCCATAGTGGTAGTTT 1501  
QY 1501 GCGCTTTGGTACAGAGGTGAGTTAAAGCTGTGGAAGGCTTATTCGATTTGCAATTCAG 1560  
DB 1502 GCGCTTTGGTACAGAGGTGAGTTAAAGCTGTGGAAGGCTTATTCGATTTGCAATTCAG 1561  
QY 1561 AGTAACCTGTGTGCATCTCTAGAGAGTAGGGAATAATGCTTGTTCACAATTCGACCT 1620  
DB 1562 AGTAACCTGTGTGCATCTCTAGAGAGTAGGGAATAATGCTTGTTCACAATTCGACCT 1621  
QY 1621 AATATCTGCATTTGTAATAATAAATGCATATTTCAACAACCAACGTAATTTTTTACACT 1680  
DB 1622 AATATCTGCATTTGTAATAATAAATGCATATTTCAACAACCAACGTAATTTTTTACACT 1681  
QY 1681 ATGTTTTATTACCTTTTGATATCTGTTGCAATCTTAGTGATGTTTTAAAAATGTGATG 1740  
DB 1682 ATGTTTTATTACCTTTTGATATCTGTTGCAATCTTAGTGATGTTTTAAAAATGTGATG 1741  
QY 1741 AAAATATATATGTTTTTAAGAGGAACAGTAGTGGAAATGTAATGTTAAAGATCTTTATGTG 1800  
DB 1742 AAAATATATATGTTTTTAAGAGGAACAGTAGTGGAAATGTAATGTTAAAGATCTTTATGTG 1801  
QY 1801 TTTATGGTCTGCAGAGGATTTTTGTGATGAAGGGATTTTTTGAATAATTTAGAGAACT 1860  
DB 1802 TTTATGGTCTGCAGAGGATTTTTGTGATGAAGGGATTTTTTGAATAATTTAGAGAACT 1861  
QY 1861 AGCATATGGAAATTTAATGTGTTTTTTTACCAATGACTTCAGTTCTGTTTTTAGCTA 1920  
DB 1862 AGCATATGGAAATTTAATGTGTTTTTTTACCAATGACTTCAGTTCTGTTTTTAGCTA 1921  
QY 1921 GAACTTTAAACAACAAATAATAAAGAAAAATAATAAAGAGGAGGAGGAGCAAGT 1980  
DB 1922 GAACTTTAAACAACAAATAATAAAGAAAAATAATAAAGAGGAGGAGGAGCAAGT 1981  
QY 1981 TCTGATCTCTGTTTTTGGTTTACCTGATTTCCATGATCATGCTTCTGTCACACCC 2040  
DB 1982 TCTGATCTCTGTTTTTGGTTTACCTGATTTCCATGATCATGCTTCTGTCACACCC 2041  
QY 2041 CTCTTAAGCAGCAGCAAGCAAGTGTGTTGTCTGTACATTTAGGAGTTAGGTACTAAT 2100  
DB 2042 CTCTTAAGCAGCAGCAGCAAGCAAGTGTGTTGTCTGTACATTTAGGAGTTAGGTACTAAT 2101  
QY 2101 AGTTGGCTAATGCTCAAGTATTTTATACCCACAGAGAGGTATGTCACCTCATCTTACTTC 2160  
DB 2102 AGTTGGCTAATGCTCAAGTATTTTATACCCACAGAGAGGTATGTCACCTCATCTTACTTC 2161  
QY 2161 CCAGGACATCCACCCTGAGAATAATTTGACAAGCTTAAATAATGGCTTCCATGTGAGTGGC 2220  
DB 2162 CCAGGACATCCACCCTGAGAATAATTTGACAAGCTTAAATAATGGCTTCCATGTGAGTGGC 2221  
QY 2221 AAAATTTGTTTTTCTTCAATTTAAATAATTTCTTGCCTAAATACATGTGAGAGGAGTTAA 2280  
DB 2222 AAAATTTGTTTTTCTTCAATTTAAATAATTTCTTGCCTAAATACATGTGAGAGGAGTTAA 2281  
QY 2281 ATATAATGTACAGAGGAAAGTTGAGTTCCACCTCTGAAATGAGAATTTACTTGACACT 2340  
DB 2282 ATATAATGTACAGAGGAAAGTTGAGTTCCACCTCTGAAATGAGAATTTACTTGACACT 2341  
QY 2341 TGGGATACTTTTAAATCAGAAAAAAGAACTTATTTGAGCATTTTATCAACAATAATTCATA 2400  
DB 2342 TGGGATACTTTTAAATCAGAAAAAAGAACTTATTTGAGCATTTTATCAACAATAATTCATA 2401  
QY 2401 ATTTGGACAATTTGAGGCAATTTATTTAAAAACAATTTTATTTGGCCCTTTTGTCAACAC 2460  
DB 2402 ATTTGGACAATTTGAGGCAATTTATTTAAAAACAATTTTATTTGGCCCTTTTGTCAACAC 2461  
QY 2461 AGTAAGCATGTATTTATAGGCATTTCAATAATGCACACCCGCCCAAGAAATAAATC 2520



Db 2462 AGTAAGCATGTATTTTATAAGGCATCAATTAATCCACAACGCCCAAGAAATCAATC 2521  
Qy 2521 CTATCAATCTACTCTCCACTACACAGAGTAATCACTATTAGTATTTTGGCATATTAT 2580  
Db 2522 CTATCAATCTACTCTCCACTACACAGAGTAATCACTATTAGTATTTTGGCATATTAT 2581  
Qy 2581 TCTCAGGTGTTGCTTATGACATTTATAATGATTTTGAACAATAAATCACTAGGAACCTG 2640  
Db 2582 TCTCAGGTGTTGCTTATGACATTTATAATGATTTTGAACAATAAATCACTAGGAACCTG 2641  
Qy 2641 TATACATGTTTTCATACCTGCCCTCTTCTGCTGGCCCTTTATGAGATAGTTTTCCT 2700  
Db 2642 TATACATGTTTTCATACCTGCCCTCTTCTGCTGGCCCTTTATGAGATAGTTTTCCT 2701  
Qy 2701 GTCAGAAAGCAGAACCATCTCATTTCTAACAGCTGTGTTATATTCATATGATTCATT 2760  
Db 2702 GTCAGAAAGCAGAACCATCTCATTTCTAACAGCTGTGTTATATTCATATGATTCATT 2761  
Qy 2761 ACTCAACAACTGTTGCTATTTGGATACCTTAGTGGTTCCTTCACTGACATACCTGAAT 2820  
Db 2762 ACTCAACAACTGTTGCTATTTGGATACCTTAGTGGTTCCTTCACTGACATACCTGAAT 2821  
Qy 2821 AAACATCTCACCGGAATTC 2839  
Db 2822 AAACATCTCACCGGAATTC 2840  
  
RESULT 4  
AAA97364  
ID AAA97364 standard; cDNA; 2840 BP.  
XX AC  
AC AAA97364;  
DT  
DT 29-JAN-2001 (first entry)  
XX DE Human colorectal cancer modulator protein BCX2 cDNA.  
XX DE  
KW Colorectal cancer modulator protein; CCMp; human; expression profile;  
KW drug screening; diagnosis; prognosis; antibody; vaccine; BCX2;  
KW immunogenic; gene therapy; targeting moiety; CCMp inhibitor; tumour; ss.  
XX OS Homo sapiens.  
XX PN WO200055633-A2.  
XX PD 21-SEP-2000.  
XX PF 15-MAR-2000; 2000WO-US07044.  
XX PR 15-MAR-1999; 99US-0268866.  
XX PR 09-NOV-1999; 99US-0435945.  
XX PR 09-NOV-1999; 99US-0436983.  
XX PR 29-NOV-1999; 99US-0450857.  
XX PR 02-DEC-1999; 99US-0453850.  
XX PR 28-JAN-2000; 2000US-0493444.  
XX PA (EOSB-) EOS BIOTECHNOLOGY INC.  
XX PI Mack D, Gish KC, Wilson KE;  
XX WPI; 2000-638217/61.  
XX  
XX Use of expression profiles, nucleic acids and proteins involved in  
PT colorectal cancer for diagnosis and prognosis of colorectal cancer and  
PT identifying candidate agent and/or targets which modulate colorectal  
PT cancer -  
XX  
XX Claim 1; Fig 41; 308pp; English.  
XX  
XX The invention relates to the use of expression profile nucleic acids  
CC encoding colorectal cancer modulator proteins (CCMPs) for screening  
CC drug candidates and bioactive agents capable of binding and/or  
CC modulating CCMPs; for evaluating the effect of drugs for the treatment of

CC colorectal cancer; for the diagnosis and prognosis of colorectal cancer;  
CC and as a target for colorectal cancer therapy. The expression profile  
CC nucleic acids used in the methods of the invention encode the CCMPs CZA8,  
CC BCX2, CBC2, CBC1, CBC3, CJA8, CJA9, CGA7, BCN5, COA1, BCN7, COA2, CAA2,  
CC CAA9 and CGA8. The CCMPs (especially CJA8 (AAB23166)) may be used in  
CC vaccine compositions, and also to raise antibodies for use as therapeutic  
CC agents, or targeting moieties for therapeutic agents in the treatment  
CC of colorectal cancer. Inhibitors of CCMP activity may also be used in  
CC the treatment of other tumours. CCMP nucleotides, especially those  
CC encoding CJA8, may be used in gene therapy, and in genetic vaccines.  
CC Sequences AAA97355-A97371 represent nucleic acid sequences encoding a  
CC variety of colorectal cancer modulator proteins.  
XX  
SQ Sequence 2840 BP; 807 A; 626 C; 648 G; 759 T; 0 other;  
  
Query Match 99.9%; Score 2837.4; DB 21; Length 2840;  
Best Local Similarity 100.0%; Pred. No. 0;  
Matches 2838; Conservative 0; Mismatches 1; Indels 0; Gaps 0;  
  
Qy 1 AGCGCCGCTGAATTTCTAGGGCGGTTGCGGCCCGGAGGCTGAGAGCTGGCGCTGCTCG 60  
Db 2 AGCGCCGCTGAATTTCTAGGGCGGTTGCGGCCCGGAGGCTGAGAGCTGGCGCTGCTCG 61  
Qy 61 TGCCCTGTGTGCCAGACGGCGGAGCTCCGCGCGCGGACCCCGCGCCGCTTTGCTGCTGC 120  
Db 62 TGCCCTGTGTGCCAGACGGCGGAGCTCCGCGCGCGGACCCCGCGCCGCTTTGCTGCTGC 121  
Qy 121 GACTGGAGTTTGGGGGAAGAACTCTCTGCGGCCCGCAGAGATTTTCTCTCGCGCAAGG 180  
Db 122 GACTGGAGTTTGGGGGAAGAACTCTCTGCGGCCCGCAGAGATTTTCTCTCGCGCAAGG 181  
Qy 181 GACAGCGAAAGATGAGGTTGCGAGGAAGAGAGGCGCTTTCTGCTGCGGGGTGCGCAGC 240  
Db 182 GACAGCGAAAGATGAGGTTGCGAGGAAGAGAGGCGCTTTCTGCTGCGGGGTGCGCAGC 241  
Qy 241 GCGAGAGGCGAGTGCATGTTCTCTCCATCTAGTGGCGTGTGCTGTGCTGCACCT 300  
Db 242 GCGAGAGGCGAGTGCATGTTCTCTCCATCTAGTGGCGTGTGCTGTGCTGCACCT 301  
Qy 301 GCGCGTGGCGTGGCGCGCGCGCGCTGCGAGGCGGCGGCGCATCTATGTGCGGCAAT 360  
Db 302 GCGCGTGGCGTGGCGCGCGCGCGCTGCGAGGCGGCGCATCTATGTGCGGCAAT 361  
Qy 361 GCCCTGGAACATCACGCGGATGCCCAACACCTGTCACACACGACGAGGAAAGCCCAT 420  
Db 362 GCCCTGGAACATCACGCGGATGCCCAACACCTGTCACACACGACGAGGAAAGCCCAT 421  
Qy 421 CCTGCCCATTCGACGAGTACGAGGAGTGGTGGACGTGAATCGACGCGCGTCTCGCTT 480  
Db 422 CCTGCCCATTCGACGAGTACGAGGAGTGGTGGACGTGAATCGACGCGCGTCTCGCTT 481  
Qy 481 CTTCTTCTGTGCCATGTACGCGGCCCATTTTGACCCCTGGAGTTCTTCGACGAGCCCTATCAA 540  
Db 482 CTTCTTCTGTGCCATGTACGCGGCCCATTTTGACCCCTGGAGTTCTTCGACGAGCCCTATCAA 541  
Qy 541 GCGGTGCAAGTCGTTGTGCCAACGCGCGCGGCGACGACTGCGAGCCCTCATGAAGATGTA 600  
Db 542 GCGGTGCAAGTCGTTGTGCCAACGCGCGGCGGCGACGACTGCGAGCCCTCATGAAGATGTA 601  
Qy 601 CAACACACGCTGGCGCCGAAAGCTTGGCCTTGGCGAGCTGCTGTCTATGACCGTGGCT 660  
Db 602 CAACACACGCTGGCGCCGAAAGCTTGGCCTTGGCGAGCTGCTGTCTATGACCGTGGCT 661  
Qy 661 GTGCATTTGCGCTGAAGCCATCGTACGAGACCTCCGCGAGGATGTTAAGTGAATGACAT 720  
Db 662 GTGCATTTGCGCTGAAGCCATCGTACGAGACCTCCGCGAGGATGTTAAGTGAATGACAT 721  
Qy 721 CACACACACATGATGTTACAGAAAGGCTCTTGTATGTTGACTGTAAACGCTTAAGCCC 780  
Db 722 CACACACACATGATGTTACAGAAAGGCTCTTGTATGTTGACTGTAAACGCTTAAGCCC 781  
Qy 781 CGATCGGTGCAAGTGTAAAAAGGTGAAGCAACTTTGGCAAGCTATCTCAGCAAAACATTA 840  
Db 781 CGATCGGTGCAAGTGTAAAAAGGTGAAGCAACTTTGGCAAGCTATCTCAGCAAAACATTA 840

Db 782 CGATCGGTCAAGTGTAAAGGTCGAAGCCAACTTTGGCAAGCTATCTCAGCAAAAACATA 841  
QY 841 CAGCTATGTTATTTCATGCCAAATATAAGCTCTGCAGAGAGCTGGCTGCAATGAGGTCAAC 900  
Db 842 CAGCTATGTTATTTCATGCCAAATATAAGCTCTGCAGAGAGTGGCTGCAATGAGGTCAAC 901  
QY 901 AACGGTGGTGGATGTAAGAGAGATCTTCAAGTCTCATCACCCATCCCTCGAACTCAAGT 960  
Db 902 AACGGTGGTGGATGTAAGAGAGATCTTCAAGTCTCATCACCCATCCCTCGAACTCAAGT 961  
QY 961 CCGGCTCATTAAGATTTCTTTCGGAGTGTCCACAGATCTTCCGCGCCCATCAAGATGTTCT 1020  
Db 962 CCGGCTCATTAAGATTTCTTTCGGAGTGTCCACAGATCTTCCGCGCCCATCAAGATGTTCT 1021  
QY 1021 CATCATGCTTACGAGTGGCTTCAAGGATGATGCTTCTTGAAGATTTGCTTAACTGAA 1080  
Db 1022 CATCATGCTTACGAGTGGCTTCAAGGATGATGCTTCTTGAAGATTTGCTTAACTGAA 1081  
QY 1081 ATGGAGAGATCAGCTTAGTAAGAGATCCATACAGTGGGAAGAGAGGCTGCAGGAACAGCG 1140  
Db 1082 ATGGAGAGATCAGCTTAGTAAGAGATCCATACAGTGGGAAGAGAGGCTGCAGGAACAGCG 1141  
QY 1141 GAGACAGTTCAGGACAGAAAGAACAGCCGGCGCAGCAGCTGTAATCCGCCCAA 1200  
Db 1142 GAGACAGTTCAGGACAGAAAGAACAGCCGGCGCAGCAGCTGTAATCCGCCCAA 1201  
QY 1201 ACCAAGGGAAGCCCTCTGCTCCCAAGCCAGCCAGTCCCAAGAGAACATTAAGACTAG 1260  
Db 1202 ACCAAGGGAAGCCCTCTGCTCCCAAGCCAGCCAGTCCCAAGAGAACATTAAGACTAG 1261  
QY 1261 GAGTGGCCAGAGAGAACAAACCCGAAAGAGTGTGAGCTAACTAGTTTCCAAAGCGGAG 1320  
Db 1262 GAGTGGCCAGAGAGAACAAACCCGAAAGAGTGTGAGCTAACTAGTTTCCAAAGCGGAG 1321  
QY 1321 ACTTCGGACTTCCTTACAGGATGAGCGTGGGATTCGCTGGGACAGCCATGTAAGGCCA 1380  
Db 1322 ACTTCGGACTTCCTTACAGGATGAGCGTGGGATTCGCTGGGACAGCCATGTAAGGCCA 1381  
QY 1381 TGTGGCCCTTGGCCCTAACAACTCAGTGCAGTGTCTTCAATACACACATCTTCGACGATTT 1440  
Db 1382 TGTGGCCCTTGGCCCTAACAACTCAGTGCAGTGTCTTCAATACACACATCTTCGACGATTT 1441  
QY 1441 TTCTTAAGGCTATGCTTCAAGTTTCTTTTGTAAAGCCATCACAAAGCCATAGTGGTAGTTT 1500  
Db 1442 TTCTTAAGGCTATGCTTCAAGTTTCTTTTGTAAAGCCATCACAAAGCCATAGTGGTAGTTT 1501  
QY 1501 GCCCTTTGCTACAGAGGTGAGTTAAAGCTGTGGAAAGGCTTATGCAATTCGATTCAG 1560  
Db 1502 GCCCTTTGCTACAGAGGTGAGTTAAAGCTGTGGAAAGGCTTATGCAATTCGATTCAG 1561  
QY 1561 AGTAACCTGTGTCATCTCTAGAGAGTGAAGGAAATTAATGCTTGTACAAATTCGACCT 1620  
Db 1562 AGTAACCTGTGTCATCTCTAGAGAGTGAAGGAAATTAATGCTTGTACAAATTCGACCT 1621  
QY 1621 AATATGTCATTTGTAATAATGCAATATTTCAACAAACACGTAATTTTTTACAGT 1680  
Db 1622 AATATGTCATTTGTAATAATGCAATATTTCAACAAACACGTAATTTTTTACAGT 1681  
QY 1681 ATGCTTTTATACCTTTGATATCTGTTGTGCAATGTTAGTATGTTTAAATGTGATG 1740  
Db 1682 ATGCTTTTATACCTTTGATATCTGTTGTGCAATGTTAGTATGTTTAAATGTGATG 1741  
QY 1741 AAAATATATATGTTTTAAGAGGAACAGTGAATGAATGTTTAAAGATCTTTTATG 1800  
Db 1742 AAAATATATATGTTTTAAGAGGAACAGTGAATGAATGTTTAAAGATCTTTTATG 1801  
QY 1801 TTTATGGTCTCAGAGGATTTTTGTGATGAAAGGGGATTTTTTGAAGAAATTAGAGAGT 1860  
Db 1802 TTTATGGTCTCAGAGGATTTTTGTGATGAAAGGGGATTTTTTGAAGAAATTAGAGAGT 1861  
QY 1861 AGCATATGCAAAATTAATATGTTTTTTTACCAATGACTTCAGTTCTGTTTTTAGCTA 1920  
Db 1862 AGCATATGCAAAATTAATATGTTTTTTTACCAATGACTTCAGTTCTGTTTTTAGCTA 1921

QY 1921 GAAACTTAAACAAACAAATAATAAAGAAAAATAAATAAAGGAGAGGAGAGCAATG 1980  
Db 1922 GAAACTTAAACAAACAAATAATAAAGAAAAATAAATAAAGGAGAGGAGAGCAATG 1981  
QY 1981 TCTGGATTCCTGTTTGTGTTTACCTGATTTCCATGATCATGCTTCTTGTCAACACC 2040  
Db 1982 TCTGGATTCCTGTTTGTGTTTACCTGATTTCCATGATCATGCTTCTTGTCAACACC 2041  
QY 2041 CTCTTAAGCAGCACCAGAACAGTGTGCTGTACCATTAGGAGTTAGGTACTAAT 2100  
Db 2042 CTCTTAAGCAGCACCAGAACAGTGTGCTGTACCATTAGGAGTTAGGTACTAAT 2101  
QY 2101 AGTTGGCTAATGCTCAAGTATTTATACCCACAAGAGAGTATGTCACATCATCTTACTTC 2160  
Db 2102 AGTTGGCTAATGCTCAAGTATTTATACCCACAAGAGAGTATGTCACATCATCTTACTTC 2161  
QY 2161 CCAGGACATCCACCCTGAGATAATTTGACAGCTTTAAAGATGGCCTTCATGTGAGTGCC 2220  
Db 2162 CCAGGACATCCACCCTGAGATAATTTGACAGCTTTAAAGATGGCCTTCATGTGAGTGCC 2221  
QY 2221 AAATTTGTTTCTTCTTCAATTTAAATATTTTCTTGCCTAAATACATGTCAGAGGAGTTAA 2280  
Db 2222 AAATTTGTTTCTTCTTCAATTTAAATATTTTCTTGCCTAAATACATGTCAGAGGAGTTAA 2281  
QY 2281 ATATAAATGTCAGAGAGGAGAAAGTTGAGTCCACCTCTGAAATGAGAATTTACTTTGACAGT 2340  
Db 2282 ATATAAATGTCAGAGAGGAGAAAGTTGAGTCCACCTCTGAAATGAGAATTTACTTTGACAGT 2341  
QY 2341 TGGGATACCTTTAATCAGAAAAAAGAACTTTATTTGAGCATTTTATCAACAAATTTTCA 2400  
Db 2342 TGGGATACCTTTAATCAGAAAAAAGAACTTTATTTGAGCATTTTATCAACAAATTTTCA 2401  
QY 2401 ATTGGGACAAATGGAGGCAATTTATTTAAACAAATTTTATGGCCCTTTTGCCTAACAC 2460  
Db 2402 ATTGGGACAAATGGAGGCAATTTATTTAAACAAATTTTATTTGGCCCTTTTGCCTAACAC 2461  
QY 2461 AGTAAGCATGTATTTATTAAGGCATTTCAATAATGCACAAACGCCCAAGGAAATAAAATC 2520  
Db 2462 AGTAAGCATGTATTTATTAAGGCATTTCAATAATGCACAAACGCCCAAGGAAATAAAATC 2521  
QY 2521 CTATCTAATCTTACTCTCCATACACAGAGGTAATCAGTATTTAGTATTTTGGCATATTTAT 2580  
Db 2522 CTATCTAATCTTACTCTCCATACACAGAGGTAATCAGTATTTAGTATTTTGGCATATTTAT 2581  
QY 2581 TCTCCAGGTGTTGCTTATGCACTTATAAATGATTTGAACAAATAAAACTAGGAACCTG 2640  
Db 2582 TCTCCAGGTGTTGCTTATGCACTTATAAATGATTTGAACAAATAAAACTAGGAACCTG 2641  
QY 2641 TATACATGTGTTTCATTAACCTGCCTCTTGTGCTTGGCCCTTTATTTGAGATAAGTTTTCCT 2700  
Db 2642 TATACATGTGTTTCATTAACCTGCCTCTTGTGCTTGGCCCTTTATTTGAGATAAGTTTTCCT 2701  
QY 2701 GTCAAGAAAGCAGAACCATCTCATTTCTTACAGCTGTGTTATATTTCCATAGTATGCAAT 2760  
Db 2702 GTCAAGAAAGCAGAACCATCTCATTTCTTACAGCTGTGTTATATTTCCATAGTATGCAAT 2761  
QY 2761 ACTCAACAACTGTTGCTGCTATTTGGATCTTAGGTGTTTCTTCACTGCAATAGTGAAT 2820  
Db 2762 ACTCAACAACTGTTGCTGCTATTTGGATCTTAGGTGTTTCTTCACTGCAATAGTGAAT 2821  
QY 2821 AAACATCTCACCGGAATTC 2839  
Db 2822 AAACATCTCACCGGAATTC 2840

RESULT 5

ABK92118

ID ABK92118 standard; DNA; 2820 BP.

XX ABK92118;

AC ABK92118;

XX 15-AUG-2002 (first entry)

XX DE Prostate cancer-associated DNA sequence #4.  
XX KW Prostate cancer; prostate tumour tissue; human; mammal; cytostatic;  
XX KW gene therapy; gene; ds.  
XX XX Mammalia.  
XX OS WO200230268-A2.  
XX PN 18-APR-2002.  
XX PD 12-OCT-2001; 2001WO-US32045.  
XX PF 13-OCT-2000; 2000US-0687576.  
XX PR 08-DEC-2000; 2000US-0733288.  
XX PR 08-DEC-2000; 2000US-0733742.  
XX PR 24-JAN-2001; 2001US-263957P.  
XX PR 16-MAR-2001; 2001US-276791P.  
XX PR 06-APR-2001; 2001US-276888P.  
XX PR 24-APR-2001; 2001US-281922P.  
XX PR 30-APR-2001; 2001US-286214P.  
XX PR 04-MAY-2001; 2001US-0847046.  
XX PR 04-MAY-2001; 2001US-286589P.  
XX PA (EOSB-) EOS BIOTECHNOLOGY INC.  
XX XX Gish KC, Mack DH, Wilson KE, Afar D, Hevezi P;  
XX PI WPI; 2002-471335/50.  
XX DR P-PSDB; ABG61803.  
XX XX Detecting a prostate cancer-associated transcript in a cell in a  
XX PT patient, useful for diagnosing prostate cancer (PC) or screening  
XX PT modulators of PC, by determining if prostate cancer-associated genes  
XX PT are expressed in a prostate tissue -  
XX XX Claim 22; Page 304; 436pp; English.  
XX XX The present invention relates to methods of detecting a prostate  
XX CC cancer-associated transcript in a cell from a patient. The method  
XX CC comprises contacting a biological sample from the patient with  
XX CC prostate cancer-associated polynucleotides (designated PC genes) that  
XX CC selectively hybridise to a sequence that is at least 80% identical  
XX CC to them. The prostate cancer-associated polynucleotide sequences  
XX CC are differentially expressed in prostate tumour tissue or in  
XX CC prostate cancer and are derived from the tissues of various  
XX CC organisms such as humans or other mammals (e.g. mice, sheep and dogs).  
XX CC The methods of the invention are useful for diagnosing and treating  
XX CC prostate cancer in mammals. The prostate cancer-associated genes are  
XX CC useful for diagnosing or treating prostate cancer, as well as for  
XX CC identifying modulators of prostate cancer or agents that inhibit  
XX CC prostate cancer. The nucleic acid sequences are particularly useful  
XX CC in gene therapy, as a vaccine or in antisense applications.  
XX CC ABK92115-ABK92263 represent prostate cancer-associated polynucleotide  
XX CC sequences.  
XX SQ Sequence 2820 BP; 803 A; 619 C; 643 G; 755 T; 0 other;  
  
Query Match 99.3%; Score 2820; DB 24; Length 2820;  
Best Local Similarity 100.0%; Pred. No. 0;  
Matches 2820; Conservative 0; Mismatches 0; Indels 0; Gaps 0;  
  
OY 20 GCGCGGTTCCGCCCGGAGGCTGAGAGCTGGCGCTGCTGCGCTGCTGCTGCCAGCGG 79  
DB 1 GCGCGGTTCCGCCCGGAGGCTGAGAGCTGGCGCTGCTGCGCTGCTGCTGCCAGCGG 60  
  
OY 80 CGGAGCTCCGCGCGGACCCCGCGCCCGCTTTGCTGCCGACTGGAGTTGGGGGAAG 139  
DB 61 CGGAGCTCCGCGCGGACCCCGCGCCCGCTTTGCTGCCGACTGGAGTTGGGGGAAG 120  
  
OY 140 AAACCTCTCTGCGCGCCCGAGAGATTCTTCTCGCGGAGGGGACGCGGAAGATGAGGT 199  
DB 140 AAACCTCTCTGCGCGCCCGAGAGATTCTTCTCGCGGAGGGGACGCGGAAGATGAGGT 199

DB 121 AAACCTCTCTGCGCGCCCGAGAGATTCTTCTCGCGGAGGGGACGCGGAAGATGAGGT 180  
OY 200 GCGAGAAAGAGAGCGCTTTCTGTGCGGGGTCGAGCGCGAGAGGGCAGTGCCTATG 259  
DB 181 GCGAGAAAGAGAGCGCTTTCTGTGCTGCCGGGTGCGACGCGAGAGGGCAGTGCCTATG 240  
OY 260 TTCTCTCTCATCTAGTGGCGCTGTGCTGTGGCTGCGACCTGGCGCTGGCGCTGGCGGC 319  
DB 241 TTCTCTCTCATCTAGTGGCGCTGTGCTGTGGCTGCGACCTGGCGCTGGCGCTGGCGGC 300  
OY 320 GCGCGCTCGGAGGCGGTGGCATCTATGTGCGCGGACATCGCTGGGAACATCAGCGG 379  
DB 301 GCGCGCTCGGAGGCGGTGGCATCTATGTGCGCGGACATCGCTGGGAACATCAGCGG 360  
OY 380 ATGCCCAACCACTGCACACACAGCAGCAGGAGAGAGCGCATCTCTGCCCATCAGCAGTAC 439  
DB 361 ATGCCCAACCACTGCACACACAGCAGCAGGAGAGAGCGCATCTCTGCCCATCAGCAGTAC 420  
OY 440 GAGGAGCTGGTGGAGCTGAACCTGACGCGCGCTGCTGCGCTTCTTCTGTGCTGCCATGTAC 499  
DB 421 GAGGAGCTGGTGGAGCTGAACCTGACGCGCGCTGCTGCGCTTCTTCTGTGCTGCCATGTAC 480  
OY 500 GCGCGCATTTGCACCTCGAGTTCTGCGACGACCGCTATCAAGCGCTGCAAGTCGGTGGC 559  
DB 481 GCGCGCATTTGCACCTCGAGTTCTGCGACGACCGCTATCAAGCGCTGCAAGTCGGTGGC 540  
OY 560 CAACGCGCGCGGACGACTGCGAGCGCTCTATGAAGATGTACAACACACAGCTGGCCGAA 619  
DB 541 CAACGCGCGCGGACGACTGCGAGCGCTCTATGAAGATGTACAACACACAGCTGGCCGAA 600  
OY 620 AGCCTGGCGCTGGAGAGCTGCTGTATGACCGCTGGCGCTGTGCTATTTTCGCTGNAAGCC 679  
DB 601 AGCCTGGCGCTGGAGAGCTGCTGTATGACCGCTGGCGCTGTGCTATTTTCGCTGNAAGCC 660  
OY 680 ATGCTACGAGGCTCCCGGAGGATGTTAAGTGGATAGACATCACACACACATGATGTA 739  
DB 661 ATGCTACGAGGCTCCCGGAGGATGTTAAGTGGATAGACATCACACACACATGATGTA 720  
OY 740 CAGGAAGGCTCTTGTGATGTTGACTGTAACGCTTAAGCCCGATCGGTGCAAGTCTAAA 799  
DB 721 CAGGAAGGCTCTTGTGATGTTGACTGTAACGCTTAAGCCCGATCGGTGCAAGTCTAAA 780  
OY 800 AAGGTGAAGCCAACTTTGGCAACGCTATCTCAGCAAAACTACAGCTATGTTATTCATGCC 859  
DB 781 AAGGTGAAGCCAACTTTGGCAACGCTATCTCAGCAAAACTACAGCTATGTTATTCATGCC 840  
OY 860 AAAATAAAGCTGTCGACGAGGAGTGGCTGCAATGAGGTCAACCGGTGCTGATGTAATA 919  
DB 841 AAAATAAAGCTGTCGACGAGGAGTGGCTGCAATGAGGTCAACCGGTGCTGATGTAATA 900  
OY 920 GAGATCTTCAAGTCTCATACCCCATCCCTGCAACTCAAGTCCCGCTCATTTACAATTC 979  
DB 901 GAGATCTTCAAGTCTCATACCCCATCCCTGCAACTCAAGTCCCGCTCATTTACAATTC 960  
OY 980 TCTTCCAGTGTCCACACATCTGCCCCCATCAAGATGTTCTCATCATGTTGTACGAGTG 1039  
DB 961 TCTTCCAGTGTCCACACATCTGCCCCCATCAAGATGTTCTCATCATGTTGTACGAGTG 1020  
OY 1040 CTTTCAAGATGATGCTTCTTGAATAATTCCTTAGTTGAAAAATGGAGATCAGCTTACT 1099  
DB 1021 CTTTCAAGATGATGCTTCTTGAATAATTCCTTAGTTGAAAAATGGAGATCAGCTTACT 1080  
OY 1100 AAAAGATCCATACAGTGGGAGAGAGGCTGCGAGGAACACGCGGAGAACAGTTCAGGACA 1159  
DB 1081 AAAAGATCCATACAGTGGGAGAGAGGCTGCGAGGAACACGCGGAGAACAGTTCAGGACA 1140  
OY 1160 AAGAAACAGCGCGGCGACCACTAGTGTAGTAATCCCGCCCAAAACCAAGGAAGCCTCT 1219  
DB 1141 AAGAAACAGCGCGGCGACCACTAGTGTAGTAATCCCGCCCAAAACCAAGGAAGCCTCT 1200  
OY 1220 GCTCCCAACACAGCAGTCCCAAGAGAACATTAACATAGGAGTGCACAGAGAGAACA 1279  
DB 1201 GCTCCCAACACAGCAGTCCCAAGAGAACATTAACATAGGAGTGCACAGAGAGAACA 1260

QY 1280 AACCCGAAAAGAGTGTGAGCTAACTAGTTTCCAAAGCGSAGACTTCCGACTTCCTTACAG 1339  
DB 1261 AACCCGAAAAGAGTGTGAGCTAACTAGTTTCCAAAGCGSAGACTTCCGACTTCCTTACAG 1320  
QY 1340 GATGAGGCTGGCCATTTGCGTGGGACAGCCTATGTAAAGCCATGTGCCCTTCCCTTAACA 1399  
DB 1321 GATGAGGCTGGCCATTTGCGTGGGACAGCCTATGTAAAGCCATGTGCCCTTCCCTTAACA 1380  
QY 1400 ACTCACTGCAGTCTCTTCATAGACACATCTTGCAGCATTTTCTTAAGGCTATGCTTCA 1459  
DB 1381 ACTCACTGCAGTCTCTTCATAGACACATCTTGCAGCATTTTCTTAAGGCTATGCTTCA 1440  
QY 1460 GTTTTCTTTTGAAGCCATCAACAAGCCATAGTGGTAGTTTGCCTTTTGGGTACAGAAGGT 1519  
DB 1441 GTTTTCTTTTGAAGCCATCAACAAGCCATAGTGGTAGTTTGCCTTTTGGGTACAGAAGGT 1500  
QY 1520 GAGTTAAAGCTGGTGAAGAGCTTATTTGCATTTGCAATTCGACCTAATATGTGCATTTGTAAT 1579  
DB 1501 GAGTTAAAGCTGGTGAAGAGCTTATTTGCATTTGCAATTCGACCTAATATGTGCATTTGTAAT 1560  
QY 1580 CTAGAAGAGTACGGAAATTAATGCTTTGTTCACAAATTCGACCTAATATGTGCATTTGTAAT 1639  
DB 1561 CTAGAAGAGTACGGAAATTAATGCTTTGTTCACAAATTCGACCTAATATGTGCATTTGTAAT 1620  
QY 1640 AAATGCCATATTTCAACAAAAACAGTAATTTTTTACAGTATGTTTTTATACCTTTTGA 1699  
DB 1621 AAATGCCATATTTCAACAAAAACAGTAATTTTTTACAGTATGTTTTTATACCTTTTGA 1680  
QY 1700 TATCTGTTGTTGCAATGTTAGTGATGTTTTTAAAGTGATGAAATATATGTTTTTAAAG 1759  
DB 1681 TATCTGTTGTTGCAATGTTAGTGATGTTTTTAAAGTGATGAAATATATGTTTTTAAAG 1740  
QY 1760 AAGGAACAGTGTGGAATGAATGTTTAAAGAGTCTTATGTTTATGGTCTGCAGAGGA 1819  
DB 1741 AAGGAACAGTGTGGAATGAATGTTTAAAGAGTCTTATGTTTATGGTCTGCAGAGGA 1800  
QY 1820 TTTTGTGTATGAAGGGGATTTTTTGMMAAATTAGAGAAGTAGCATATGGAAATTTATAA 1879  
DB 1801 TTTTGTGTATGAAGGGGATTTTTTGMMAAATTAGAGAAGTAGCATATGGAAATTTATAA 1860  
QY 1880 TGTGTTTTTTTACCAATGACTTCAGTTCTCTTTTAGTGAAGACTTAAACAAATAAT 1939  
DB 1861 TGTGTTTTTTTACCAATGACTTCAGTTCTCTTTTAGTGAAGACTTAAACAAATAAT 1920  
QY 1940 AATAATAAGAAATAATAATAAGAGGAGGAGGAGCAATGCTGGATTCCTGTTTTTGG 1999  
DB 1921 AATAATAAGAAATAATAATAAGAGGAGGAGGAGCAATGCTGGATTCCTGTTTTTGG 1980  
QY 2000 GTTACCTGATTTCCATGATCATGCTCTTGTCAACACCCTCTTAAGCAGCACCAGAA 2059  
DB 1981 GTTACCTGATTTCCATGATCATGCTCTTGTCAACACCCTCTTAAGCAGCACCAGAA 2040  
QY 2060 ACAGTGAGTTTGTCTGTACCATTAGAGTTAGTACTAATAGTTGGCTAATGCTCAAGT 2119  
DB 2041 ACAGTGAGTTTGTCTGTACCATTAGAGTTAGTACTAATAGTTGGCTAATGCTCAAGT 2100  
QY 2120 ATTTTATACCCACAGAGAGGATGTCTACTCATCTTACTTCCAGGACATCCACCCCTGAG 2179  
DB 2101 ATTTTATACCCACAGAGAGGATGTCTACTCATCTTACTTCCAGGACATCCACCCCTGAG 2160  
QY 2180 AATAATTTGACAAGCTTAAAAATGGCCTTCATGTGAGTGCCAAATTTGTTTTTCTTCAAT 2239  
DB 2161 AATAATTTGACAAGCTTAAAAATGGCCTTCATGTGAGTGCCAAATTTGTTTTTCTTCAAT 2220  
QY 2240 TTAATAATTTTCTTGGCTTAAATACATGTGAGAGAGGTTAAATATAATGTACAGAGAG 2299  
DB 2221 TTAATAATTTTCTTGGCTTAAATACATGTGAGAGAGGTTAAATATAATGTACAGAGAG 2280  
QY 2300 AAAGTTGAGTTCCACCTCTGAATGAGAAATTAATCTGACAGTTGGGATCTTTAAATCAGAA 2359  
DB 2281 AAAGTTGAGTTCCACCTCTGAATGAGAAATTAATCTGACAGTTGGGATCTTTAAATCAGAA 2340

QY 2360 AAAAAGAACTTTATTTGACAGCATTTTATCAACAAATTTTCATATTTGTGGACAATTTGAGGC 2419  
DB 2341 AAAAAGAACTTTATTTGACAGCATTTTATCAACAAATTTTCATATTTGTGGACAATTTGAGGC 2400  
QY 2420 ATTTATTTTAAAAAACAATTTTATTTGGCCTTTTGTCTAACACAGTAAGCATGTATTTTATA 2479  
DB 2401 ATTTATTTTAAAAAACAATTTTATTTGGCCTTTTGTCTAACACAGTAAGCATGTATTTTATA 2460  
QY 2480 AGGCATTTCAATAAATGCAACAGCCCAAGAGAAATAAATTCCTATCTATCTACTCTCTCC 2539  
DB 2461 AGGCATTTCAATAAATGCAACAGCCCAAGAGAAATAAATTCCTATCTACTCTCTCC 2520  
QY 2540 ACTACACAGAGTAATCACTATTAGTATTTTGGCATATTTTCTCCAGGTGTTTGTCTTAT 2599  
DB 2521 ACTACACAGAGTAATCACTATTAGTATTTTGGCATATTTTCTCCAGGTGTTTGTCTTAT 2580  
QY 2600 GCACCTTATAAATGATTTTGAACAAATAAAGCTAGGAACCTGTATACATGTGTTTCATAAC 2659  
DB 2581 GCACCTTATAAATGATTTTGAACAAATAAAGCTAGGAACCTGTATACATGTGTTTCATAAC 2640  
QY 2660 CTGCTCTCTTTGCTTGGCCCTTTTATTGAGATAAGTTTCTCTCAAGAAAGCAGAAACCA 2719  
DB 2641 CTGCTCTCTTTGCTTGGCCCTTTTATTGAGATAAGTTTCTCTCAAGAAAGCAGAAACCA 2700  
QY 2720 TCTCATTTTCAACAGCTGTGTTTATATTTCCATAGTATGCAATTAATCAACAACACTGTTGTGC 2779  
DB 2701 TCTCATTTTCAACAGCTGTGTTTATATTTCCATAGTATGCAATTAATCAACAACACTGTTGTGC 2760  
QY 2780 TATTGGATACCTTAGTGGTTTCTTCTCAGTCACAATGTAATAACATCTCACCGGAAATTC 2839  
DB 2761 TATTGGATACCTTAGTGGTTTCTTCTCAGTCACAATGTAATAACATCTCACCGGAAATTC 2820

## RESULT 6

AAEF0598

ID AAF0598 standard; cDNA; 2009 BP.

XX AAF0598;

XX 08-JUN-2001 (first entry)

XX Receptor #86 partial coding sequence.

XX Probe; microarray; cancer; immunopathology; neuropathology; ss.

XX Homo sapiens.

XX US6183968-B1.

XX 06-FEB-2001.

XX 25-MAR-1999; 99US-0276531.

XX 27-MAR-1998; 98US-0079677.

XX (INCY-) INCYTE PHARM INC.

XX Bandman O, Lal P, Hillman JL, Yue H, Reddy R, Guegler KJ;

XX Baughm MR;

XX WPI; 2001-201999/20.

XX Composition having probes which comprise part of gene sequence encoding  
XX proteins associated with cell proliferation useful as hybridizable  
XX array elements in Microarrays to monitor expression of target  
XX polynucleotide

XX Claim 1; Columns 167-170; 104pp; English.

XX The present invention relates to a composition comprising several  
XX polynucleotide probes. Probes can be derived from the present sequence.  
XX The probes are immobilised and are preferably useful as hybridisable  
XX array elements in a microarray for monitoring the expression of several



Db 1888 AAAATATAATGTGCTTTTTTACAAATGACTCAGCTCTGTTTTAGCTAGAACTCTAA 1947  
Qy 1930 AAACAAAATAATAAAGAAAAATAATAAAGAGGAGGAGGAGACAA 1978  
Db 1948 AAACAAAATAATAAAGAAAAATAATAAAGAGGAGGAGGAGACAA 1996

RESULT 7  
AAC84495  
ID AAC84495 standard; DNA; 1767 BP.  
XX AAC84495;  
DT 02-APR-2001 (first entry)  
XX Human FRAZZLED polypeptide encoding DNA.  
XX FRAZZLED; antiinflammatory; osteopathic; immunosuppressive; AIDS;  
XX antiarthritic; cerebroprotective; vasotropic; nephrotropic; antiHIV;  
XX cyostatic; antiarteriosclerotic; nootropic; neuroprotective; vaccine;  
XX gene therapy; human; ds.  
XX Homo sapiens.  
OS  
XX  
XX Key Location/Qualifiers  
FH 171..1211  
CDS /\*tag= a  
FT /\*product= "FRAZZLED polypeptide"  
FT  
XX  
PN W0200075280-A2.  
XX  
XX 14-DEC-2000.  
XX  
XX 08-JUN-2000; 2000WO-US15814.  
XX  
XX 08-JUN-1999; 99US-0327869.  
XX (SMIK ) SMITHKLINE BEECHAM CORP.  
XX  
XX Lark MW, James IE, Kumar S;  
XX  
XX WPI; 2001-080596/09.  
DR P-PSDB; AAB48183.  
XX  
XX New FRAZZLED polynucleotides and polypeptides useful for treating or  
XX preventing e.g. acute and chronic inflammation, autoimmune disorders,  
XX bone and cartilage diseases, cancers, or Alzheimer's disease -  
XX  
XX Claim 2; Page 11; 37pp; English.  
XX  
XX The invention provides a human FRAZZLED polypeptide. The FRAZZLED  
XX polynucleotides and polypeptides are useful for treating chronic and  
XX acute inflammation (e.g. arthritis, osteoarthritis and other osteopenic  
XX conditions), Paget's disease, septicemia, autoimmune diseases, infection,  
XX stroke, ischemia, acute respiratory disease syndrome, renal disorders,  
XX restenosis, brain injury, AIDS (acquired immunodeficiency syndrome),  
XX metabolic and other bone diseases, cancer (e.g. bone and cartilage  
XX cancers or tumors, lymphoproliferative disorders), atherosclerosis, and  
XX Alzheimer's disease. The polynucleotides may be used as hybridization  
XX probes for cDNA and genomic DNA, to isolate cDNA and genomic clones of  
XX other genes having high sequence similarity to the FRAZZLED gene, and for  
XX chromosome identification. The polypeptides may further be used as  
XX immunogens to produce antibodies immunospecific for the FRAZZLED  
XX polypeptides, as an immunological or vaccine formulation against the  
XX above cited diseases, in screening for agonists and antagonists of the  
XX FRAZZLED polypeptides, to configure assays for detecting the effect of  
XX adding compounds on the production of FRAZZLED mRNA and protein in cells,  
XX and to identify membrane bound or soluble ligand or receptors through  
XX standard ligand/receptor binding techniques. The present sequence  
XX represents the DNA encoding the human FRAZZLED polypeptide.  
XX  
XX Sequence 1767 BP; 468 A; 432 C; 456 G; 411 T; 0 other;

Query Match 60.1%; Score 1706.2; DB 22; Length 1767;  
Best Local Similarity 99.3%; Pred. No. 0;  
Matches 1755; Conservative 0; Mismatches 8; Indels 4; Gaps 4;  
Qy 88 CGCGCGGACCCCGCGCGCGCGCTTTGCTGCCGACTGGAGTTTGGGGAAGAAACTCTC 147  
Db 1 CGCGCGGAGCCCGCGCGCGCGCTTTGCTGCCGACTGGAGTTTGGGGAAGAAACTCTC 60  
Qy 148 CTGCGCCCCAGAAAGATTTCTCTCGCGGAGAGGAGACGGAAGATGAGGTGGCAGAA 207  
Db 61 CTGCGCCCCAGAGATTTCTCTCGCGGAGAGGAGACGGAAGATGAGGTGGCAGAA 120  
Qy 208 GAGAA-GGCGGCTTCTGTCTGCGGGGTCGCAGCGCGAGAGGCGCASTGCCATGTTCTCT 266  
Db 121 GAGAGGGCGCTTCTGTCTGCGGGGTCGCAGCGCGAGAGGCGAGTGCCATGTTCTCT 180  
Qy 267 CCATCTAGTGGCGCTGTGCTGTGGCTGCACCTGGCGCTGGCGCGCGCGCT 326  
Db 181 CCATCTAGTGGCGCTGTGCTGTGGCTGCACCTGGCGCTGGCGCGCGCGCT 240  
Qy 327 GCGAGGGGTCGCAATCCCTATGTGCCGCGACATCCCTTGAACATACACGCGATGCCCA 386  
Db 241 GCGAGGGGTCGCAATCCCTATGTGCCGCGACATCCCTTGAACATACACGCGATGCCCA 300  
Qy 387 ACCACTTGCACACACGACGAGGAGAACGCCATCTTGGCCATCGAGCAGTACGAGAGC 446  
Db 301 ACCACTTGCACACACGACGAGGAGAACGCCATCTTGGCCATCGAGCAGTACGAGAGC 360  
Qy 447 TGGTGGAGCTGAATGCGAGCGCGTGTGCGCTTCTTCTGTGCCATGTACGCGGCCCA 506  
Db 361 TGGTGGAGCTGAATGCGAGCGCGTGTGCGCTTCTTCTGTGCCATGTACGCGGCCCA 420  
Qy 507 TTTGCACCTGGAGTTCTGCGAGGACCTATCAACCGCTGGAAGTCGTCGCCAACGCG 566  
Db 421 TTTGCACCTGGAGTTCTGCGAGGACCTATCAACCGCTGGAAGTCGTCGCCAACGCG 480  
Qy 567 CGCGGACGACTCGGAGCGCCCTCATGAAGATGTACAACACACAGCTGGCCGCAAGCGCTGG 626  
Db 481 CGCGGACGACTCGGAGCGCCCTCATGAAGATGTACAACACACAGCTGGCCGCAAGCGCTGG 540  
Qy 627 CCGGACGAGCTGCGCTGTCTATGACCGTGGGTGTGCTATTTGGCTGAAGCATCGTCA 686  
Db 541 CCGGACGAGCTGCGCTGTCTATGACCGTGGGTGTGCTATTTGGCTGAAGCATCGTCA 600  
Qy 687 CGGACCTCCCGGAGGATGTTAAGTGGATAGACATCACACGACATGATGGTACAGGAA 746  
Db 601 CGGACCTCCCGGAGGATGTTAAGTGGATAGACATCACACGACATGATGGTACAGGAA 660  
Qy 747 GGCTCTTTGATGTTGACTGTAAACGCCCTAAGCCCGCATCGGTGCAAGTGTAAAAAGTGA 806  
Db 661 GGCTCTTTGATGTTGACTGTAAACGCCCTAAGCCCGCATCGGTGCAAGTGTAAAAAGTGA 720  
Qy 807 AGCCAACTTTGGCAACGATATCTAGCAAAAACTACAGCTATGTTATTATTCATGCCAAATAA 866  
Db 721 AGCCAACTTTGGCAACATATCTCAGCAAAAACTACAGCTATGTTATTATTCATGCCAAATAA 780  
Qy 867 AAGCTGTCGAGGAGTGGCTGCAATGAGTGCACACGCTGGTGCATGTAAAAGATCT 926  
Db 781 AAGCTGTCGAGGAGTGGCTGCAATGAGTGCACACGCTGGTGCATGTAAAAGATCT 840  
Qy 927 TCAAGTCTCATACCCCATCCCTCGAAGTCAAGTCCCGCTCATTTACAAATTTCTTTTGGC 986  
Db 841 TCAAGTCTCATACCCCATCCCTCGAAGTCAAGTCCCGCTCATTTACAAATTTCTTTTGGC 900  
Qy 987 AGTGTCACACATCTGCCCATCAAGATGTTCTCATCATGTGTACGAGTGGCGCTTCAA 1046  
Db 901 AGTGTCACACATCTGCCCATCAAGATGTTCTCATCATGTGTGTACGAGTGGCGCTCAA 960  
Qy 1047 GGATGATCTTCTGAAATTTGCTTAGTTGAAAAATGAGAGATCAGCTTAGTAAAGAT 1106  
Db 961 GGATGATCTTCTTGAATTTGCTTAGTTGAAAAATGAGAGATCAGCTTAGTAAAGAT 1020

Qy 1107 CCATACAGTGGGAAGAGAGGCTGCAGGAACAGCGAGAACAGTTCAGGACAAAGAGAAA 1166  
Dy 1021 CCATACAGTGGGAAGAGAGGCTGCAGGAACAGCGAGAACAGTTCAGGACAAAGAGAAA 1080  
Qy 1167 CAGCGGGCGGACACAGTCTGAGTAAATCCGCCCAACACCAAGGAAAGCCCTCTGCTCCCA 1226  
Dy 1081 CAGCGGGCGGACACAGTCTGAGTAAATCCGCCCAACACCAAGGAAAGACTCTCTCTCCCA 1140  
Qy 1227 AACAGCCAGTCCCAAGGAAGAACATTAATACTAGAGTGCAGAGAGAGAACAAACCCGA 1286  
Dy 1141 AACAGCCAGTCCCAAGGAAGAACATTAATACTAGAGTGCAGAGAGAGAACAAACCCGA 1200  
Qy 1287 AAAGAGTGTAGCTAACTAGTTTCCAAAGCGGAGACTTCCGACTTCTTACAGGATGAGG 1346  
Dy 1201 AAAGAGTGTAGCTAACTAGTTTCCAAAGCGGAGACTTCCGACTTCTTACAGGATGAGG 1260  
Qy 1347 CTGGCCATTTGGGACAGCTATGTAAAGCCATGTGCCCTTGGCCCTTACAACTCACT 1406  
Dy 1261 CTGGCCATTTGGGACAGCTATGTAAAGCCATGTGCCCTTGGCCCTTACAACTCACT 1320  
Qy 1407 GCAGTGTCTTTCATAGACACATCTTGCAGCATTTTCTTAAGGCTATGCTTCAAGTTTTC 1466  
Dy 1321 GCAGTGTCTTTCATAGACACATCTTGCAGCATTTTCTTAAGGCTATGCTTCAAGTTTTC 1380  
Qy 1467 TTTGTAGCCATCACAGCCATAGTGTAGTGGTGGCCCTTTGGTACAGAAGGTGAGTTAA 1526  
Dy 1381 TTTGTAGCCATCACAGCCATAGTGTAGTGGTGGCCCTTTGGTACAGAAGGTGAGTTAA 1440  
Qy 1527 AGCTGGTGGAAAGGCTTATTGCATTCATTCAGATTAACCTGTGTGATACTCTAGAG 1586  
Dy 1441 AGCTGGTGGAAAGGCTTATTGCATTCATTCAGATTAACCTGTGTGATACTCTAGAG 1500  
Qy 1587 AGTAGGGAAATATGCTTGTACAAATCGACCTAATATGTGCTTGTAAATAAATGCC 1646  
Dy 1501 AGTAGGGAAATATGCTTGTACAAATCGACCTAATATGTGCTTGTAAATAAATGCC 1560  
Qy 1647 ATATTTCACAAACACAGTAAATTTTTTACAGTATGTTTTTATACCTTTGATATCTGT 1706  
Dy 1561 ATATTTCACAAACACAGTAAATTTTTTACAGTATGTTTTTATACCTTTGATATCTGT 1620  
Qy 1707 TGTTCATGTACGTAGTGTATTAATATGAT-CAAAATATATGTTTTTAAAG-AAAGA 1764  
Dy 1621 TGTTCATGTAGTGTATGTTTTTAAATGTGATCGAAATATATGTTCTTAAGAAAGGA 1680  
Qy 1765 ACAGTAGTGAATGAATGT-TAAAGATCTTTATGTGTTTTATGGTCTGCAGAGGATTTT 1823  
Dy 1681 ACAGTAGTGAATGAATGTCTTAAAGATCTTTATGTTTTATGGTCTGCAGAGGATTTT 1740  
Qy 1824 TGTGATGAAGGGGATTTTTTGAAGAA 1850  
Dy 1741 TGTGATGAAGGGGATTTTTTGAAGAA 1767

RESULT 8

AAV80657

ID AAV80657 standard; cDNA; 1767 BP.

XX AC AAV80657;

XX DT 15-MAR-1999 (first entry)

XX DE Human FRAZZLED protein encoding cDNA.

XX KW Human; FRAZZLED protein; FRZB; chronic inflammation; acute inflammation;  
arthritis; osteoarthritis; septicemia; autoimmune disease; cancer;  
transplant rejection; graft versus host disease; infection; stroke;  
ischaemia; acute respiratory disease syndrome; renal disorder;  
restenosis; brain injury; AIDS; cancer; ss.

OS Homo sapiens.

XX Key Location/Qualifiers

FT CDS 105..1211

FT /\*tag- a  
XX /product= "frazzled protein"

PN EP887406-A2.

XX 30-DEC-1998.

XX 23-APR-1998; 98EP-0303163.

XX 26-NOV-1997; 97US-0978981.

XX 22-MAY-1997; 97US-0047408.

XX (SMIK ) SMITHKLINE BEECHAM CORP.

XX James I, Kumar S, Lark M;

XX WPI; 1999-047873/05.

XX P-PSDB; AAW86346.

XX New FRZB -related (FRAZZLED) polypeptide and polynucleotide - useful

XX as diagnostic reagents and for prevention and treatment of cancer,

XX Alzheimer's disease and AIDS

XX Claim 4; Page 6-7; 25pp; English.

XX The present sequence encodes human FRAZZLED protein from the FRZB

XX family. The FRZB family controls signalling and developmental

XX patterning. FRAZZLED proteins and polynucleotides are useful for

XX diagnosing diseases related to over or underexpression of FRAZZLED

XX protein by identifying mutations in the FRAZZLED gene, or determining

XX FRAZZLED protein expression levels. FRAZZLED proteins can be used to

XX screen for agonists and antagonists which bind the FRAZZLED protein

XX by observing the binding, or stimulation or inhibition of FRAZZLED

XX activity. These can be used in treatment to activate (agonist) or

XX inhibit (antagonist) FRAZZLED activity, in addition to direct

XX administration of antisense sequences to prevent expression, or FRAZZLED

XX polynucleotides to treat conditions associated with a lack of FRAZZLED

XX protein. Gene therapy may also be used to affect endogenous FRAZZLED

XX protein production. FRAZZLED antibodies are useful for inducing an

XX immune response to immunise and prevent diseases, and for isolating

XX FRAZZLED clones or purifying the protein by affinity chromatography.

XX FRAZZLED proteins can be administered directly or as a vaccine to

XX inoculate against diseases. Diseases diagnosed, prevented or treated

XX include: chronic and acute inflammation, arthritis, osteoarthritis,

XX septicemia, autoimmune diseases, transplant rejection, graft versus

XX host disease, infection, stroke, ischaemia, acute respiratory disease

XX syndrome, renal disorders, restenosis, brain injury, AIDS and cancer.

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QY 387 ACCACCTGACACACAGCAGCAGGAGAGACGCCATCCTGGCCCATCGAGCAGTACGAGGAGC 446  
Db 301 ACCACCTGACACACAGCAGCAGGAGAGACGCCATCCTGGCCCATCGAGCAGTACGAGGAGG 360  
QY 447 TGGTGGAGGTGAACTCGACGCGCGTGTGCGCTTCTTCTTCTGTGCGCATGTACGCGCCCA 506  
Db 361 TGGTGGAGGTGAACTCGACGCGCGTGTGCGCTTCTTCTTCTGTGCGCATGTACGCGCCCA 420  
QY 507 TTGTGACCTGGAGTTCCTGACGACGCCCTATCAAGCCGTGCAAGTCGGTGTGCCAACGGG 566  
Db 421 TTGTGACCTGGAGTTCCTGACGACGCCCTATCAAGCCGTGCAAGTCGGTGTGCCAACGGG 480  
QY 567 CGCGGACGACTGCGAGCGCCCTCATGAAGATGTACAACACACAGCGCGCCGAAAGCCTGG 626  
Db 481 CGCGGACGACTGCGAGCGCCCTCATGAAGATGTACAACACACAGCGCGCCGAAAGCCTGG 540  
QY 627 CCGTGGAGAGGTGCGTCTATGACCGTGGCGTGTGCATTTTCGCCCTGAAGCCATCGTCA 686  
Db 541 CCGTGGAGAGGTGCGTCTATGACCGTGGCGTGTGCATTTTCGCCCTGAAGCCATCGTCA 600  
QY 687 CGGACCTCCCGGAGGATGTTAAGTGGATAGACATCACACACACATGATGTTACAGGAAA 746  
Db 601 CGGACCTCCCGGAGGATGTTAAGTGGATAGACATCACACACACATGATGTTACAGGAAA 660  
QY 747 GGCCTCTTGATGTTGACTGTAACGCCCTAAGCCCGATCGGTGCAAGTGTAAAGAGGTGA 806  
Db 661 GGCCTCTTGATGTTGACTGTAACGCCCTAAGCCCGATCGGTGCAAGTGTAAAGAGGTGA 720  
QY 807 AGCCAACTTTGGCAACGATATCTACAGAAAACATACAGCTATGTTATTCATGCGCAAAATAA 866  
Db 721 AGCCAACTTTGGCAACATATCTACAGAAAACATACAGCTATGTTATTCATGCGCAAAATAA 780  
QY 867 AAGCTGTGCAGAGAGTGGCTGCAATGAGTGCACACCGTGGTGTGATGTAAGAGAGATCT 926  
Db 781 AAGCTGTGCAGAGAGTGGCTGCAATGAGTGCACACCGTGGTGTGATGTAAGAGAGATCT 840  
QY 927 TCAAGTCTCTATCACCCATCCCTCGAACTCAAGTCCCGCTCATTAACAATTTCTTCTGCC 986  
Db 841 TCAAGTCTCTATCACCCATCCCTCGAACTCAAGTCCCGCTCATTAACAATTTCTTCTGCC 900  
QY 987 AGTGCCACACATCTGCCCCATCAAGATGTCTCATGTGTTACAGTGGCGGTTCA 1046  
Db 901 AGTGCCACACATCTGCCCCATCAAGATGTCTCATGTGTTACAGTGGCGGCTCAA 960  
QY 1047 GGATGATGCTTCTTCAAAATTCGTTAGTTGAAATGGAGATCAGCTTAGTAAAGAT 1106  
Db 961 GGATGATGCTTCTTCAAAATTCGTTAGTTGAAATGGAGATCAGCTTAGTAAAGAT 1020  
QY 1107 CCATACAGTGGGAGAGAGGCTGCGAGAACACGCGGAGAACAGTTTCAGGACACAGAAAA 1166  
Db 1021 CCATACAGTGGGAGAGAGGCTGCGAGAACACGCGGAGAACAGTTTCAGGACACAGAAAA 1080  
QY 1167 CAGCGGGCGCACAGTGTAGTATATCCCGCCCAACCAAGGGAAGGCTCTGCTCCCA 1226  
Db 1081 CAGCGGGCGCACAGTGTAGTATATCCCGCCCAACCAAGGGAAGGCTCTGCTCCCA 1140  
QY 1227 AACACGCGAGTCCCAAGAGAACATTAATACTAGGAGTGCACAGAGAGAACAAACCGCA 1286  
Db 1141 AACACGCGAGTCCCAAGAGAACATTAATACTAGGAGTGCACAGAGAGAACAAACCGCA 1200  
QY 1287 AAGAGTGTAGCTAACTAGTGTTCAAAGCGGAGACTTCGCGACTTCTTACAGGATGAGG 1346  
Db 1201 AAGAGTGTAGCTAACTAGTGTTCAAAGCGGAGACTTCGCGACTTCTTACAGGATGAGG 1260  
QY 1347 CTGGGCAATGCTGGACAGCCTATGTAAAGCCATGTGCGCCCTTGCCTTAACAACCTACT 1406  
Db 1261 CTGGGCAATGCTGGACAGCCTATGTAAAGCCATGTGCGCCCTTGCCTTAACAACCTACT 1320  
QY 1407 CGAGTGTCTTCATAGACACATCTTGCAGCATTTTTCTTAAGGCTATGCTTCAGTTTTTC 1466  
Db 1321 CGAGTGTCTTCATAGACACATCTTGCAGCATTTTTCTTAAGGCTATGCTTCAGTTTTTC 1380

QY 1467 TTTGTAAGCCATCACAAAGCCATAGTGGTAGGTTTGGCCTTTGGTACAGAAGGTGAGTTAA 1526  
Db 1381 TTTGTAAGCCATCACAAAGCCATAGTGGTAGGTTTGGCCTTTGGTACAGAAGGTGAGTTAA 1440  
QY 1527 ACCTGGTGGAAAAGCCTATTTCGATTCAGATTACAGATTAACCTGTGCACTCTAGAAG 1586  
Db 1441 ACCTGGTGGAAAAGCCTATTTCGATTCGATTCAGATTACAGATTAACCTGTGCACTCTAGAAG 1500  
QY 1587 ACTAGGGAATAATTCCTTTTACAAATTCGACCTAATATGTGCATTGTAATAATAATGCC 1646  
Db 1501 AGTAGGGAATAATTCCTTTTACAAATTCGACCTAATATGTGCATTGTAATAATAATGCC 1560  
QY 1647 ATATTTCAAACAAAACACGTAATTTTACAGTAGTGTGTTTTTATACCTTTTGATCTGT 1706  
Db 1561 ATATTTCAAACAAAACACGTAATTTTACAGTAGTGTGTTTTATACCTTTTGATCTGT 1620  
QY 1707 TCTTCCAATGTTAGTGTGATGTTTTTAAATCTGAT-GAAAATATAATCTTTTAAG-AAGCA 1764  
Db 1621 TCTTCCAATGTTAGTGTGATGTTTTTAAATCTGATGCAATAATAATGCTTCTTAAGAAAGGA 1680  
QY 1765 ACAGTAGTGGGAATGAATGT-TAAAAGATCTTTATGTTTATGGTCTGCAGAAAGGATTTT 1823  
Db 1681 ACAGTAGTGGGAATGAATGTCTAAAGATCTTTATGTTTATGGTCTGCAGAAAGGATTTT 1740  
QY 1824 TGTGATGAAAGGGGATTTTTCGAAAA 1850  
Db 1741 TGTGATGAAAGGGGATTTTTCGAAAA 1767

.. RESULT 9  
AAV80658  
ID AAV80658 standard; cDNA; 1969 BP.  
XX AC AAV80658;  
XX 15-MAR-1999 (first entry)  
DE Partial human FRAZZLED protein encoding cDNA.  
KW Human; FRAZZLED protein; PR2B; chronic inflammation; acute inflammation;  
KW arthritis; osteoarthritis; septicemia; autoimmune disease; cancer;  
KW transplant rejection; graft versus host disease; infection; stroke;  
KW ischaemia; acute respiratory disease syndrome; renal disorder;  
KW restenosis; brain injury; AIDS; cancer; ss.  
XX OS Homo sapiens.  
FH Key Location/Qualifiers  
FT CDS 200..1318  
FT /\*tag= ".a  
FT /product= "partial frazzled protein"  
FT /transl\_except= (pos:254..256,aa:Xaa)  
FT /note= "Xaa is unspecified"  
XX EP887406-A2.  
PN 30-DEC-1998.  
PD 23-APR-1998; 98EP-0303163.  
PF 26-NOV-1997; 97US-0978981.  
PR 22-MAY-1997; 97US-0047408.  
PA (SMIK ) SMITHKLINE BEECHAM CORP.  
PI James I, Kumar S, Lark M;  
XX WPI; 1999-047873/05.  
DR P-PSDB; AAV86347.  
XX New FR2B-related (FRAZZLED) polypeptide and polynucleotide - useful  
PT as diagnostic reagents and for prevention and treatment of cancer,  
PT Alzheimer's disease and AIDS



XX Example 1; Page 9-10; 25pp; English.  
 XX  
 CC The present sequence encodes partial human FRAZZLED protein from the  
 CC FRZB family. The FRZB family controls signalling and developmental  
 CC patterning. FRAZZLED proteins and polynucleotides are useful for  
 CC diagnosing diseases related to over or underexpression of FRAZZLED  
 CC protein by identifying mutations in the FRAZZLED gene, or determining  
 CC FRAZZLED protein expression levels. FRAZZLED proteins can be used to  
 CC screen for agonists and antagonists which bind the FRAZZLED protein  
 CC by observing the binding, or stimulation or inhibition of FRAZZLED  
 CC activity. These can be used in treatment or inhibition (agonist) or  
 CC inhibit (antagonist) FRAZZLED activity, in addition to direct  
 CC administration of antisense sequences to prevent expression, or FRAZZLED  
 CC polynucleotides to treat conditions associated with a lack of FRAZZLED  
 CC protein. Gene therapy may also be used to affect endogenous FRAZZLED  
 CC protein production. FRAZZLED antibodies are useful for inducing an  
 CC immune response to immunise and prevent diseases, and for isolating  
 CC FRAZZLED clones or purifying the protein by affinity chromatography.  
 CC FRAZZLED proteins can be administered directly or as a vaccine to  
 CC inoculate against diseases. Diseases diagnosed, prevented or treated  
 CC include: chronic and acute inflammation, arthritis, osteoarthritis,  
 CC septicemia, autoimmune diseases, transplant rejection, graft versus  
 CC host disease, infection, stroke, ischaemia, acute respiratory disease  
 CC syndrome, renal disorders, restenosis, brain injury, AIDS and cancer.  
 XX  
 SQ Sequence 1969 BP; 504 A; 484 C; 518 G; 458 T; 5 other;  
  
 Query Match 59.7%; Score 1694.8; DB 20; Length 1969;  
 Best Local Similarity 96.4%; Pred. No. 0;  
 Matches 1854; Conservative 0; Mismatches 49; Indels 21; Gaps  
  
 QY 14 TTCTAGGCGGGTTGCGGCCCGCCCAAGGCTGAGAGCTGGCGCTGCTCGTGCCTGTGTGTC 73  
 Db | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |  
 22 TGCCCGGCGGGTTGCGGCCCGCCCAAGGCTGAGAGCTGGCGCTGCTCGTGCCTGTGTGTC 81  
  
 QY 74 AGACGGGGAGCTCCGGGGCGGACCCCGGGCCCGCTTTGCTGCCGACTGGAGTTTGG 133  
 Db | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |  
 82 AGACGGGGAGCTCCGGGGCGGACCCCGGGCCCGCTTTGCTGCCGACTGGAGTTTGG 141  
  
 QY 134 GGGAAAGAACTCTCTCGCGCCCGACAGAGATTCTTCTCGCGGAAGGACAGCGAAAGAT 193  
 Db | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |  
 142 GGGAAAGAACTCTCTCGCGCCCGACAGAGATTCTTCTTGGCGAAGGACAGCGAAAGAT 201  
  
 QY 194 GAGGTTGGCAGGAAGAA--GGCGCTTTCTGTCTGCGGGGGTGCAGCGCAGAGGGCAG 252  
 Db | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |  
 202 GAGGTTGGCAGGAAGAGGGCGCTTCTGTCTGCGGGGTGCAGCGCAGAGNGCAG 261  
  
 QY 253 TGCATGTTCTCTCATCTCTAGTGGGCTGCTGTGTGCTG-CACCTGGCGCTGGGCG 311  
 Db | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |  
 262 TGCCATGTTCTCTCCATCTCTAGTGGCGCTGTGCCTGTGCTACCTGGGCGTGGCG 321  
  
 QY 312 TG-CGCGGCGCGCTCGAGG-CGGTGCATCCCTATGTGCGGCACATGCCCTGGAA 369  
 Db | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |  
 322 TGTGCGGCGCGCTGACGAGGTGGTGGCGCATCCCTATGTGCGGCACATGCCCTGGAA 381  
  
 QY 370 CATCACGGATGCCCAACCACTTGCACACACAGCAGGAGAACGCCATCTCTGGCCAT 429  
 Db | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |  
 382 CATCACGGATGCCCAACCACTTGCACACACAGCAGGAGAACGCCATCTCTGGCCAT 441  
  
 QY 430 CGAGCAGTAGCAGAGCTGGTGGACGTGAACACTGACGGCGGTGCTGCGGTCTTCTCTCTG 489  
 Db | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |  
 442 CGAGCAGTAGCAGAGCTGGTGGACGTGAACACTGACGGCGGTGCTGCGGTCTTCTCTCTG 501  
  
 QY 490 TGCCATGTACGGCGCCATTTCACCCCTGGAGTTCTTGCACGACCCCTATCAAGCCGTGCAA 549  
 Db | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |  
 502 TGCCATGTACGGCGCCATTTCACCCCTGGAGTTCTTGCACGACCCCTATCAAGCCGTGCAA 561  
  
 QY 550 GTCCGTTGTCAACGCGCGCGGACGACTCGAGGCGCCCTCATGAAGATGTACAAACACAG 609  
 Db | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |  
 562 GTCCGTTGTCAACGCGCGCGGACGACTCGAGGCGCCCTCATGAAGATGTACAAACACAG 621  
  
 QY 610 GTGCCCGGAAAGCCTCGCCCTGCAGCAGCTGCGCTGTCTATGACCGGTGGCGTGTGATTTTC 669

Db 1702 ATG-TTATTACCTTTGATATCTGTTGTGCAATGTTAGTGATGTTAAATGTATCG 1760  
 Qy 1741 AAAATATAATGTTTAAAGAGAACAGTGTG-TGAATGAATGT-TAAAGATCTTTATG 1798  
 Db 1761 AAAATATAATGTTTAAAGAGAACAGTGTG-TGAATGAATGT-TAAAGATCTTTATG 1820  
 Qy 1799 TGTATTATGTTG-CAGAGAGATTTTGTGATGAAAGGGGATTTTGTGAAAAA--TTAGA 1855  
 Db 1821 TGTATTATGTTGTCAGAGAGATTTTGTGATGAAAGGGGATTTTGTGAAAAAATCTAGG 1880  
 Qy 1856 GAATAGC--ATATCGAAATATTAATGCTTTTATTTTACCAATGACTTCAGTTCTGTTT 1913  
 Db 1881 GAATAGCCTATGGAATAATATGCTTTTATTTTACATGGACTCCAGCTCCGTTT 1940  
 Qy 1914 TTAG 1917  
 Db 1941 TTG 1944

RESULT 10  
 AAC84496  
 AAC84496 standard; DNA; 1969 BP.  
 AAC84496;  
 02-APR-2001 (first entry)  
 Partial nucleotide sequence of human FRAZZLED gene.

KW FRAZZLED; antinflammatory; osteopathic; immunosuppressive; AIDS;  
 KX antihypertensive; cerebroprotective; vasotropic; nephrotropic; antiHIV;  
 KW cytostatic; antiarteriosclerotic; nootropic; neuroprotective; vaccine;  
 KW gene therapy; human; ds.  
 OS Homo sapiens.  
 FH Key  
 FT CDS  
 FT 200..1318  
 FT /\*tag= a  
 FT /transl\_except= "pos: 254..256, aa: Xaa)  
 FT /note= "Xaa is unknown"

WO200075280-A2.  
 14-DEC-2000.  
 08-JUN-2000; 2000WO-US15814.  
 08-JUN-1999; 99US-0327869.  
 (SMIK ) SMITHKLINE BEECHAM CORP.  
 Lark MW, James IE, Kumar S;  
 WPI; 2001-080596/09.  
 P-PSDB; AAB48184.

New FRAZZLED polynucleotides and polypeptides useful for treating or preventing e.g. acute and chronic inflammation, autoimmune disorders, bone and cartilage diseases, cancers, or Alzheimer's disease -  
 Disclosure: Page 12-14; 37pp; English.  
 The invention provides a human FRAZZLED polypeptide. The FRAZZLED polynucleotides and polypeptides are useful for treating chronic and acute inflammation (e.g. arthritis, osteoarthritis and other osteopenic conditions), Paget's disease, septicemia, autoimmune diseases, infection, stroke, ischemia, acute respiratory disease syndrome, renal disorders, restenosis, brain injury, AIDS (acquired immunodeficiency syndrome), metabolic and other bone diseases, cancer (e.g. bone and cartilage cancers or tumors, lymphoproliferative disorders), atherosclerosis, and Alzheimer's disease. The polynucleotides may be used as hybridization probes for cDNA and genomic DNA, to isolate cDNA and genomic clones of

CC other genes having high sequence similarity to the FRAZZLED gene, and for  
 CC chromosome identification. The polypeptides may further be used as  
 CC immunogens to produce antibodies immunospecific for the FRAZZLED  
 CC polypeptides, as an immunological or vaccine formulation against the  
 CC above cited diseases, in screening for agonists and antagonists of the  
 CC FRAZZLED polypeptides, to configure assays for detecting the effect of  
 CC adding compounds on the production of FRAZZLED mRNA and protein in cells,  
 CC and to identify membrane bound or soluble ligand or receptors through  
 CC standard ligand/receptor binding techniques. The present sequence  
 CC represents the partial FRAZZLED nucleotide sequence.  
 XX

SQ Sequence 1969 BP: 504 A: 484 C: 518 G: 458 T: 5 other:  
 Query Match 59.7%; Score 1694.8; DB 22; Length 1969;  
 Best Local Similarity 96.4%; Pred. No. 0;  
 Matches 1854; Conservative 0; Mismatches 49; Indels 21; Gaps 11;

Qy 14 TTCTAGGGGGGTTTCGGCCCGGAGGCTGAGAGCTGGGGCTGCTGCTGCTGTGGC 73  
 Db 22 TGCCCGGGGGTTCGGCCCGGAGGCTGAGAGCTGGGGCTGCTGCTGCTGTGGC 81  
 Qy 74 AGACGGCGGAGCTCCGGCGGAGCCCGCGGCTTTCCTCGGCGAGGACAGCAAGAT 133  
 Db 82 AGACGGCGGAGCTCCGGCGGAGCCCGCGGCTTTCCTCGGCGAGGACAGCAAGAT 141  
 Qy 134 GGAAGAAACTCTCTCGGCGGAGGAGATTTCTTCCTCGGCGAGGACAGCAAGAT 193  
 Db 142 GGAAGAAACTCTCTCGGCGGAGGAGATTTCTTCCTCGGCGAGGACAGCAAGAT 201  
 Qy 194 GAGGTGGCGAGGAGAGAA-GGGCGTTTCTGTCGCGGGTTCGCGGAGGAGGCGAG 252  
 Db 202 GAGGTGGCGAGGAGAGAGGCGGCTTCTGTCGCGGGTTCGCGGAGGAGGCGAG 261  
 Qy 253 TGCCATGTTCTCTCCATCTAGTGGCGCTGTCCTGTCGCTGTCGCTGTCGCTG 311  
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 Qy 430 CGAGCAGTACGAGAGCTGGTGGAGTGAACCTGCGAGCGCGCTGCTGCTGCTG 489  
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 Db 802 CAAGTGTAAAGAGGTAAGCCCAACTTTTGGCAACATATCTCAGCAAAACTACAGCTATCT 861



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Db 142 GGAAGAAGTCTCTCTGCGCGCCAGAGATTTCTCTCGCGGAGGACACAGCGAAGAT 201  
Qy 194 GAGGTGCGAGAGAGAA-GGCGCTTTCTGTCTGCGCGGGTTCGAGCGCGAGAGGGAG 252  
Db 202 GAGGTGCGAGAGAGAGAGGGCGCTTTCTGTCTGCGCGGGTTCGAGCGCGAGAGGGAG 261  
Qy 253 TGCCATGTTCTCTCTCATCTTATGTCGCGCTGTGCTGTGCTG-CACCTGGCGTGGCG 311  
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Qy 312 TG-CGCGCGCGCGCTTGGAGG-CGGTGGCATCCCTATGTCGCGCGACATGCGCCCTGGAA 369  
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Db 1821 TGTATGTCGTG-CAGAAGGATTTTGTGATGAAGGGGATTTTGTGAAAAA--TTAGA 1880  
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Qy 1914 TTAG 1917  
Db 1941 TTG 1944

RESULT 12  
AA28656  
ID AA28656 standard; cDNA; 1581 BP.  
XX  
AC AA28656;  
XX  
DT 16-AUG-1999 (first entry)  
XX  
DE Full length clone encoding the human frezzled-like protein.  
XX  
KW Human frezzled-like protein; HFLP; frezzled protein family;  
KW differentiation-related disorder; agonist; antagonist; antibody;  
KW haematopoiesis; wound healing; cancer; inflammatory disorder;  
KW autoimmune disease; allergic reaction; ss.  
OS Homo sapiens.  
FH Key Location/Qualifiers

```
FT CDS 78...1184
FT /*tag= a
FT /product= "human frezzled-like protein"
FT sig_peptide 78...206
FT /*tag= b
FT mat_peptide 206...1181
FT /*tag= c
FT
XX
XX W09909152-A1.
XX
XX 25-FEB-1999.
XX
XX 11-AUG-1998; 98W0-US16701.
XX
XX 10-APR-1998; 98US-0081438.
XX 12-AUG-1997; 97US-0055715.
XX
XX (HUMA-) HUMAN GENOME SCI INC.
XX
XX Olsen HS, Ruben SM;
XX
XX WPI; 1999-190159/16.
XX P-PSDB; AAY03232.
XX
XX New isolated human frezzled-like protein - used to develop products
XX for treating e.g. cancers, inflammatory and autoimmune diseases,
XX infectious diseases and allergic reactions
XX
XX Disclosure; Fig 2A-2B; 152pp; English.
XX
XX This is the nucleotide sequence of the full length clone encoding
XX the human frezzled-like protein (HFLP), used in the method of the
XX invention. It is a member of the frizzled protein family. It is
XX used in the detection and treatment of differentiation-related
XX disorders. In conditions where HFLP is under-expressed, its agonist
XX is involved in the treatment. Antagonist and antibodies of HFLP are
XX used in the treatment of disorder where HFLP is over-expressed, e.g.
XX the regulation of haematopoiesis, and wound healing. HFLP products
XX are used to develop products for treating e.g. cancers, inflammatory
XX and autoimmune diseases, infectious diseases and allergic
XX reactions.
XX
XX Sequence 1581 BP; 415 A; 412 C; 405 G; 345 T; 4 other;
XX
XX Query Match 54.3%; Score 1541.2; DB 20; Length 1581;
XX Best Local Similarity 98.7%; Pred. No. 0;
XX Matches 1560; Conservative 2; Mismatches 17; Indels 1; Gaps 1;
XX
XX 115 GCTGCCGACTGAGTTTGGGGGAAGAACTCTCTCGCGCCCGCAGAGATTTCTTCTCGG 174
XX 1 GCTGCCGACTGAGTTTGGGGGAAGAACTCTCTCGCGCCCGCAGAGATTTCTTCTCGG 60
XX
XX 175 CCAAGGGACAGCAAGATGAGGTGGCAGGAGAGAA-GGCGCTTCTGTCTGCGCGGG 233
XX
XX 61 CCAAGGGACAGCAAGATGAGGTGGCAGGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 120
XX
XX 234 TCGCAGCGGAGGAGGAGTGCATGTTCTCTCTCCTCTCTCTCTCTCTCTCTCTCTCTCT 293
XX 121 TCGCAGCGGAGGAGGAGTGCATGTTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCT 180
XX
XX 294 TGCACCTGCGCTGGCGGTGGCGGGCGCGCGCTGCGAGCGGTGCGCATTCCTATGTGCG 353
XX 181 TGCACCTGCGCTGGCGGTGGCGGGCGCGCGCTGCGAGCGGTGCGCATTCCTATGTGCG 240
XX
XX 354 GGCACATGCCCTGGACATCAGCGGATGCCCAACCCCTGCACACACAGCAGCGAGGAGA 413
XX 241 GGCACATGCCCTGGACATCAGCGGATGCCCAACCCCTGCACACACAGCAGCGAGGAGA 300
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XX 414 AGCCCATCTGCGCATCGAGGAGTACGAGGAGCTGTGGACGTGAACTCAGCGCGGTGC 473
XX 301 AGCCCATCTGCGCATCGAGGAGTACGAGGAGCTGTGGACGTGAACTCAGCGCGGTGC 360
XX
XX 474 TCGGCTTCTTCTCTGTCCTGACGCGCCCAATTTGCACCCCTGGAGTTCTTCTGCGCAG 533
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Db 421 CTATCAAGCCGTGCAAGTCTGGTGTCCAAAGCGCGCGGAGCAGCTGCGAGCCCTCATGA 480
Qy 594 AGATGTACAACACACAGCTGGCCGAAAGCCTGGCCCTGGCAGAGCTGGCTGTCTATGACC 653
Db 481 AGATGTACAACACACAGCTGGCCGAAAGCCTGGCCCTGGCAGAGCTGGCTGTCTATGACC 540
Qy 654 GTGGCGTGTGCAATTTGGCTGAGGCCATGTGCACGAGCTGCCGAGGAGTGTAAAGTGA 713
Db 541 GTGGCGTGTGCAATTTGGCTGAGGCCATGTGCACGAGCTGCCGAGGAGTGTAAAGTGA 600
Qy 714 TAGACATCACACACACATGATGTACAGGAAGCCCTTCTGATGTGACTCTAAAGCC 773
Db 601 TAGACATCACACACACATGATGTACAGGAAGCCCTTCTGATGTGACTCTAAAGCC 660
Qy 774 TAAGCCCGGATCGGTGCAAGTGTAAAGAGTGAAGCCCAACTTTGGCAAGTATCTCAGA 833
Db 661 TAAGCCCGGATCGGTGCAAGTGTAAAGAGTGAAGCCCAACTTTGGCAAGTATCTCAGA 720
Qy 834 AAACTACAGCTATGTTATTCATGCCAAATAAAAGCTGTGCAGAGGAGTGCCTGCAATG 893
Db 721 AAACTACAGCTATGTTATTCATGCCAAATAAAAGCTGTGCAGAGGAGTGCCTGCAATG 780
Qy 894 AGGTGACAAAGCGGTGGTGTGATGTAAAGAGATCTTCAAGTCCCTCATCACCCTCGAA 953
Db 781 AGGTGACAAAGCGGTGGTGTGATGTAAAGAGATCTTCAAGTCCCTCATCACCCTCGAA 840
Qy 954 CTCAGTCCCGCTCATTAACAATTTCTTGTGCAAGTGTCCACACATCTGCCCCATCAAG 1013
Db 841 CTCAGTCCCGCTCATTAACAATTTCTTGTGCAAGTGTCCACACATCTGCCCCATCAAG 900
Qy 1014 ATGTTCTCATCATGTTTACGAGTGGGTTCAGAGTATGATGTTCTTGAATAATTCGTTAG 1073
Db 901 ATGTTCTCATCATGTTTACGAGTGGGTTCAGAGTATGATGTTCTTGAATAATTCGTTAG 960
Qy 1074 TTGAAAATGGAGACATGAGCTTACTTAAAGATCCATACAGTGGGAAGAGGCTGCAGG 1133
Db 961 TTGAAAATGGAGACATGAGCTTACTTAAAGATCCATACAGTGGGAAGAGGCTGCAGG 1020
Qy 1134 AACAGCGGAGAACAGTTCAGGACAAAGAAACAGCCGGCGGCACAGCTCGTAGTAATC 1193
Db 1021 AACAGCGGAGAACAGTTCAGGACAAAGAAACAGCCGGCGGCACAGCTCGTAGTAATC 1080
Qy 1194 CCCCCAACCAAGGAAAGCCTCTGCTCCCAACCCAGCCAGTCCCAAGAGAACATTA 1253
Db 1081 CCCCCAACCAAGGAAAGAGTCTCTGCTCCCAACCCAGCCAGTCCCAAGAGAACATTA 1140
Qy 1254 AAACCTAGGAGTCCCGAGAGACAAACCCGAAAGAGTGTGAGTAAGTCTAGTTCCAA 1313
Db 1141 AAACCTAGGAGTCCCGAGAGACAAACCCGAAAGAGTGTGAGTAAGTCTAGTTCCAA 1200
Qy 1314 AGCGAGAGCTTCGCGACTTCTTTACAGGATGAGGCTGGGATTCCTGCGACAGCCTATGT 1373
Db 1201 AGCGAGAGCTTCGCGACTTCTTTACAGGATGAGGCTGGGATTCCTGCGACAGCCTATGT 1260
Qy 1374 AAGGCGATGTGCCCTTGGCCCTTAACAATCACTGCGAGTGTCTTTCATAGACACATTTGC 1433
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Db 1501 TCTACCTAATATGTGCATTTGTAATAAATGATATTTCAACAAACACACGTAATTTT 1560  
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Db 1561 TTACAGTATGTTCTACTACC 1580

RESULT 13  
AAZ33454  
ID AAZ33454 standard; cDNA; 1556 BP.  
XX AC AAZ33454;  
XX DT 08-DEC-1999 (first entry)  
XX Human prostate cancer-associated EST 32.  
XX Expressed sequence tag; EST: prostate tumor; antitumor; treatment;  
XX gene therapy; tissue specificity human; ss.  
XX OS Homo sapiens.  
XX PN DE19811193-AL.  
XX PD 16-SEP-1999.  
XX PF 10-MAR-1998; 98DE-1011193.  
XX PR 10-MAR-1998; 98DE-1011193.  
XX PA (META-) METAGEN GES GENOMFORSCHUNG MBH.  
XX PI Specht T, Hinzmann B, Schmitt A, Pilarsky C, Dahl E, Rosenthal A;  
XX WPI: 1999-519628/44.  
XX DR P-PSDB; AAY48252.  
XX New nucleic acid expressed at high level in prostatic tumor tissue and  
XX encoded polypeptides, useful for treating cancer and screening for  
XX therapeutic agents -  
XX Claim 3; 94; 166pp; German.  
XX This invention describes novel nucleic acid sequences (A) that are  
XX expressed at high level in prostatic tumor tissue and encode gene  
XX products or their fragments. The products of the invention have  
XX antitumor activity. Polypeptides (I) encoded by (A) are used: (i) for  
XX identifying agents for treatment of prostatic cancer and (ii) for  
XX therapy of prostate cancer, optionally where expressed by gene therapy  
XX methods. (A) is also used to isolate full-length genes (for gene therapy  
XX and for recombinant production of (I), which can be used to raise  
XX specific antibodies. (A) are identified by assembly of ESTs (expressed  
XX sequence tags) before they are analyzed for expression pattern (tissue  
XX specificity). This approach eliminates many of the false results, as  
XX regards tissue specificity, associated with known methods that use  
XX single (usually short) ESTs. AAZ33454-233476 represent expressed  
XX sequence tags described in the method of the invention.  
SQ Sequence 1556 BP; 479 A; 330 C; 363 G; 384 T; 0 other;

Query Match 50.4%; Score 1432; DB 20; Length 1556;  
Best Local Similarity 97.8%; Pred. No. 5.3e-300;  
Matches 1494; Conservative 0; Mismatches 30; Indels 4; Gaps 4;

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QY 514 CTTGGAGTTCTTGCACGACCCCTATCAAGCCGTGCAAGTGGTGTGCCAACGGCGCGCA 573

Db 61 CCTGGAGTTCTTGCACGACCCCTATCAAGCGTGCAGTGGTGTGCAAGCGCGCGCA 120  
QY 574 CGACTCGGAGCCCTCATGAAGATGTACACACACAGCTGGCCGGAAGCCTGGCCTGGCA 633  
Db 121 CGACTCGGAGCCCTCATGAAGATGTACACACACAGCTGGCCGGAAGCCTGGCCTGGCA 180  
QY 634 CGAGCTGCTGTCTATGACCGTGGGTGTGCAATTTTCGCTGAAGGCATCGTCACGACCT 693  
Db 181 CGAGCTGCTGTCTATGACCGTGGGTGTGCAATTTTCGCTGAAGGCATCGTCACGACCT 240  
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Db 241 CCCGAGGATGTTAAGTGGATAGACATCACACACACATGATGGTACAGAAAGGCTCT 300  
QY 754 TGATGTTGACTGTAAACGCTTAAGCCCGCATCGGTGCAAGTGTAAAGAGTGAAGCCAAAC 813  
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QY 814 TTTGGCAACGTATCTCAGCAAAACTACAGCTATGTTATTTCATGCAAAATAAAGCTGT 873  
Db 361 TTTGGCAACGTATCTCAGCAAAACTACAGCTATGTTATTTCATGCAAAATAAAGCTGT 420  
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QY 934 CTCATCACCCATCCCTCGAATCAAGTCCCGCTCATACAAATTTCTTTCGCAAGTGTCC 993  
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QY 1054 GCTTCTTCAAAATGCTTAGTTGAAATGAGAGATCAGCTTAGTAAAGATGCCATACA 1113  
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QY 1354 TTGCGCTGGACACGCTATGTAAGGCATGTCGCCCTTGCCCTTAACAACCTCACTGCAAGTGC 1413  
Db 901 TTGCGCTGGACACGCTATGTAAGGCATGTCGCCCTTGCCCTTAACAACCTCACTGCAAGTGC 960  
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Db 1081 GGAAAGGCTTATTCGATTTGCAATTCAGAGTAACCTGTGTGCATACTCTAGAAGAGTAGG 1140  
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Db 802 GTCTAAAAAGGTGAAGCCCACTTTGGCAACGATATCTCAGCAAAAACTACAGCTATGTTAT 861  
QY 853 TCATGCCAAATAAAGCTGTGCAGAGGAGTGCTGCAATGAGGTGCACACGGTGTGGGA 912  
Db 862 TCATGCCAAATAAAGCTGTGCAGAGGAGTGCTGCAATGAGGTGCACACGGTGTGGGA 921  
QY 913 TGTAAAGAGATCTTCAAGTCCCTCATCACCACCTCCCTCGAATCAAGTCCCGCTATTAC 972  
Db 922 TGTAAAGAGATCTTCAAGTCCCTCATCACCACCTCCCTCGAATCAAGTCCCGCTATTAC 981  
QY 973 AAATTCCTTCTTGCCAGTGTCCACACATCTCTGCCCATCAAGATGTTCTCATCATGTGTTA 1032  
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QY 1153 GGACAAAGAAACAGCGGGCCACCACTGCTAGTAAATCCGCCCAACCAAGGGA 1212  
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QY 1333 CTTACAGGATGAGGCTGGGCTTCCCTGGGACAGCTATGTAAAGCCATGTGCCCCCTTC 1392  
Db 1342 CTTACAGGATGAGGCTGGGCTTCCCTGGGACAGCTATGTAAAGCCATGTGCCCCCTTC 1401  
QY 1393 CCTAACAATCACTGAGTGCCTC-TTCATAGACACATCTTGACAGCATTTTCTTAA 1447  
Db 1402 CCTAACAATCCCTGAGTGCCTCTTTCATAGACACATCTTGACAGCATTTTCTTAA 1457

RESULT 15  
ABQ54454  
ID ABQ54454 standard; cDNA; 1216 BP.  
XX AC ABQ54454;  
XX DT 22-AUG-2002 (first entry)  
XX DE Human ovarian antigen HNOKB73 cDNA, SEQ ID NO:334.  
XX KW Human; ovarian antigen; ovary; ovarian; breast; cancer; tumour;  
KW ovarian cancer; breast cancer; tumour; reproductive system disorder;  
KW infertility; pregnancy disorder; anovulation; polycystic ovary syndrome;  
KW PCOS; ovarian cyst; dysmenorrhea; endocrine disorder; infection;  
KW inflammatory condition; immune disorder; blood disorder;  
KW cardiovascular disorder; respiratory disorder; neurological disorder;  
KW gastrointestinal disorder; urinary system disorder; drug screening;  
KW gene therapy; chromosome mapping; forensic analysis;  
KW antibody preparation; cytostatic; immunomodulatory; neuroprotective;  
KW antiinflammatory; gynaecological; reproductive; gene; ss.  
XX OS Homo sapiens.  
XX OS WO200200677-A1.  
PN PN  
XX PN  
XX PD 03-JAN-2002.

XX PF 07-JUN-2001; 2001WO-US18569.  
XX PR 07-JUN-2000; 2000US-209467P.  
XX PA (HUMA-) HUMAN GENOME SCI INC.  
XX PI Birse CE, Rosen CA;  
XX P-PSDB; ABP41377.  
DR WPI: 2002-147878/19.  
DR P-PSDB; ABP41377.  
XX Isolated nucleic acid molecules encoding novel ovarian polypeptides,  
PT useful in the prevention, treatment and diagnosis of cancer (e.g.  
PT ovarian cancer), immune disorders, cardiovascular disorders and  
PT neurological diseases -  
XX Claim 1: SEQ ID NO 334; 2922pp; English.  
XX The invention relates to 2175 novel human ovarian antigens (ABP41054-  
CC ABP43228) and to cDNAs encoding them (ABQ54131-ABQ56305), and also  
CC encompasses polypeptides 90% identical and polynucleotides 95% identical  
CC to the sequences of the invention. The invention additionally relates to  
CC recombinant vectors and host cells comprising human ovarian antigen  
CC polynucleotides, antibodies against human ovarian antigens, and the use  
CC of ovarian antigen polynucleotides and polypeptides in diagnosing,  
CC treating, prognosing or preventing various ovary and/or breast-related  
CC disorders. Such conditions include ovarian cancer and breast cancer, and  
CC metastatic tumours of ovarian or breast origin, reproductive system  
CC disorders (e.g., infertility, disorders of pregnancy, anovulation,  
CC polycystic ovary syndrome, ovarian cysts, and dysmenorrhea), endocrine  
CC disorders, infections (e.g., chlamydia, HIV, toxoplasmosis), and toxic  
CC shock syndrome), inflammatory conditions (e.g., mastitis, oophoritis and  
CC vaginitis), immune disorders (e.g., congenital and acquired  
CC immunodeficiencies, autoimmune oophoritis, systemic lupus erythematosus),  
CC blood-related disorders (e.g., anaemia), cardiovascular disorders,  
CC respiratory disorders, neurological disorders, gastrointestinal disorders  
CC and urinary system disorders. Ovarian antigen polypeptides and  
CC polynucleotides may also be used in screening for compounds which  
CC modulate ovarian antigen expression or activity. The polynucleotides may  
CC further be used for gene therapy, chromosome mapping, in the  
CC identification of individuals and in forensic analysis, and the  
CC polypeptides may be used as food additives or to prepare antibodies  
CC useful in disease diagnosis, drug targeting and phenotyping. The present  
CC sequence represents cDNA encoding a human ovarian antigen of the  
CC invention.  
CC Note: The sequence data for this patent did not form part of the printed  
CC specification, but was obtained in electronic format directly from WIPO  
CC at ftp.wipo.int/pub/published\_pct\_sequences.  
XX SQ Sequence 1216 BP; 405 A; 230 C; 258 G; 317 T; 6 other;  
Query Match 37.8%; Score 1073.6; DB 24; Length 1216;  
Best Local Similarity 96.2%; Pred. No. 1.7e-222;  
Matches 1140; Conservative 0; Mismatches 39; Indels 6; Gaps 4;  
QY 800 AAGGTGAAGCCCACTTTGGCAACGATATCTCAGCAAAAACTACAGCTATGTTATTCATGCC 859  
Db 18 AANAGAACCCACTNGGCCCATATCNAGCAAAANCTACAGCTATGTTATTCATGCC 77  
QY 860 AAATAAAGCTGTGCAGAGGAGTGGCTGCAATGAGGTGCACACGGTGTGGATGTA 919  
Db 78 AAATAAAGCTGTGCAGAGGAGTGGCTGCAATGAGGTGCACACGGTGTGGATGTA 137  
QY 920 GAGATCTTCAAGTCCCTCATCACCACCTCCCTCGAATCAAGTCCCGCTCATCAAAATTC 979  
Db 138 GAGATCTTCAAGTCCCTCATCACCACCTCCCTCGAATCAAGTCCCGCTCATCAAAATTC 197  
QY 980 TCTTGCAGTGTCCACACATCTCGCCCATCAAGATGTTCTTCATCATGTGTACGAGTGG 1039  
Db 198 TCTTGCAGTGTCCACACATCTCGCCCATCAAGATGTTCTTCATCATGTGTACGAGTGG 257  
QY 1040 CGTTCAGGATGATGCTTCTTGAATAATGCTTAGTTGAAAAATGCTTAGTTGAAAAATGAGAGATCAGCTTAGT 1099



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Db 258 CGCTCAAGGATGATGCTTCTTGAATTCGTAGTTGAAATATGGAGATCAGCTTAGT 317
Qy 1100 AAAAGATCCATACAGTGGGAAGAGAGGCTGCAGGAACAGCGGAGAAACAGTTTCAGS--AC 1156
Db 318 AAAAGATCCATACAGTGGGAAGAGAGGCTGCAGGAACAGCGGAGAAACAGTTTCAGGGACAA 377
Qy 1157 AAGAAGAAACAGCGGGCGGCGCAGTGTAGTAAATCCCCCAACCAAGGAAAGCCT 1216
Db 378 GAAAGAAACAGCGGGCGGCGCAGTGTAGTAAATCCCCCAACCAAGGAAAGACT 437
Qy 1217 CCTGCTCCCAACAGCGGCTCCCAAGAAACATTTAAACTAGGAGTGCCCGAAGAGA 1276
Db 438 CCTGCTCCCAACAGCGGCTCCCAAGAAACATTTAAACTAGGAGTGCCCGAAGAGA 497
Qy 1277 ACAACCGGAAAGAGTGTAGCTTAAGTTCCTCAAGCGGAGACTTCCGACTTCCTTA 1336
Db 498 ACAACCGGAAAGAGTGTAGCTTAAGTTCCTCAAGCGGAGACTTCCGACTTCCTTA 557
Qy 1337 CAGGATGAGGCTGGGCAATGCTGGGACAGCCTATGTAAAGCCATGTGCCCTTGGCCCTA 1396
Db 558 CAGGATGAGGCTGGGCAATGCTGGGACAGCCTATGTAAAGCCATGTGCCCTTGGCCCTA 617
Qy 1397 ACAACTCACTGAGTGTCTTTCATAGACACATCTTGCAGCATTTTCTTAAGGCTATGCT 1456
Db 618 ACAACTCACTGAGTGTCTTTCATAGACACATCTTGCAGCATTTTCTTAAGGCTATGCT 677
Qy 1457 TCAGTTTTTCTTGTAGCCCATCAACGCCATAGTGTAGGTTGCCCTTGGTACAGAA 1516
Db 678 TCAGTTTTTCTTGTAGCCCATCAACGCCATAGTGTAGGTTGCCCTTGGTACAGAA 737
Qy 1517 GGTGAGTTAAAGCTGGTGGAAAGGCTTATTTGCATTTCAGAGTAACCTGTGTGCAT 1576
Db 738 GGTGAGTTAAAGCTGGTGGAAAGGCTTATTTGCATTTCAGAGTAACCTGTGTGCAT 797
Qy 1577 ACTCTAGAAGAGTAGGGAATAATATGCTTGTGTACAAATTCGACCTAATATGTGCATGTGAA 1636
Db 798 ACTCTAGAAGAGTAGGGAATAATATGCTTGTGTACAAATTCGACCTAATATGTGCATGTGAA 857
Qy 1637 AATAATGCCATATTTCAACCAACACAGTAATTTTTCACAGTATGTTTTATTACCTTT 1696
Db 858 AATAATGCCATATTTCAACCAACACAGTAATTTTTCACAGTATGTTTTATTACCTTT 917
Qy 1697 TGATATCTGTTGTGCAATGTTAGTATGTTTTAAATGTGAT-GAAAAATATAATGTTTT 1755
Db 918 TGATATCTGTTGTGCAATGTTAGTATGTTTTAAATGTGATCGAAAAATATAATGCTTC 977
Qy 1756 TAAGAAGGAACAGTAGTGAATGAATGT-TAAAAAGATCTTTTATGTGTTTATGGTCCAG 1814
Db 978 TAAGAAGGAACAGTAGTGAATGAATGTCTAAAAGATCTTTTATGTGTTTATGGTCCAG 1037
Qy 1815 AAGGATTTTTGATGAAGGGGATTTTTTGAAAAAT-TAGAGAAGTAGCATATGGAATA 1873
Db 1038 AAGGATTTTTGATGAAGGGGATTTTTTGAAAAATCTAGAGAAGTAGCATATGGAATA 1097
Qy 1874 TTATAATGCTGTTTTTTTACCAATGACTTTCAGTCTCTGTTTTTACGTAGAAACTTAAAAAC 1933
Db 1098 TTATAATGCTGTTTTTTTACCAATGACTTTCAGTCTCTGTTTTTACGTAGAAACTTAAAAAC 1157
Qy 1934 AAAAAATAATAAGAAAAATAATAAAAAAGGAGGAGGACAGACAA 1978
Db 1158 AAAAAATAATAAGAAAAATAATAAAAAAGGAGGAGGACAGNCAA 1202
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Job time : 586 secs

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